

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

155230

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5/7/81

IN MATTER OF:)	
)	ADMINISTRATIVE ORDER
HAGEN FARM SUPERFUND SITE)	PURSUANT TO SECTION 106
DANE COUNTY, WISCONSIN)	OF THE COMPREHENSIVE
)	ENVIRONMENTAL RESPONSE,
)	COMPENSATION, AND
)	LIABILITY ACT OF 1980, RESPONDENTS:
)	AS AMENDED
)	
WASTE MANAGEMENT OF WISCONSIN,)	
INCORPORATED,)	
)	
and)	
)	
UNIROYAL PLASTICS COMPANY,)	
INCORPORATED.)	
)	

I.
PREAMBLE

The following Administrative Order ("Order") is issued on this date to the Respondents pursuant to the authority vested in the President of the United States by Section 106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. Section 9606(a), as amended by the Superfund Amendments and Reauthorization Act of 1986, Pub. L. 99-499 ("CERCLA"), and delegated to the U.S. Environmental Protection Agency ("U.S. EPA" or "Agency") by Executive Order No. 12580, January 23, 1987, 52 Federal Register 2923, and further delegated to the Regional Administrator by U.S. EPA Delegation No. 14-14-B, issued February 26, 1987, and further delegated to the Director of the Waste Management Division, Region V by Delegation No. 14-14-B, issued September 14, 1987. Pursuant to Section 106(a) of CERCLA, 42 U.S.C. Section 9606(a), notice of issuance of this Order has been given to the State of Wisconsin.

This Administrative Order requires the Respondents, and each of them, to undertake remedial action activities at the Hagen Farm site located in Dane County, Wisconsin, and described in greater detail below, (the "Facility"), to abate an imminent and substantial endangerment to the public health or welfare or the environment that may be presented by the release or threat of a release of hazardous substances present at the Facility.

II.

PARTIES BOUND

This Administrative Order applies to and is binding upon the Respondents, their successors and assigns. The Respondents shall provide a copy of this Administrative Order to each engineer or contractor hired to perform the work required by this Administrative Order. The Respondents shall also require that any contractor provide a copy of this Administrative Order to each subcontractor retained to perform any part of the work required by this Administrative Order.

III.

DEFINITIONS

Whenever the following terms are used in this Administrative Order or the Appendices attached hereto, the definitions specified in this Section shall apply:

A. "CERCLA" means the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986, Pub. L. 99-499.

B. "Engineer(s)" means the company or companies retained by the Respondents to prepare the plans and implement the remedial action required pursuant to this Administrative Order.

C. "Facility" means the "facility" as that term is defined at Section 101(9) of CERCLA, 42 U.S.C. Section 9601(9), where disposal of hazardous substances was conducted; which Facility is located in Dane County, Wisconsin, and is known as the Hagen Farm Superfund Site.

D. "Hazardous substance" shall have the meaning provided in Section 101(14) of CERCLA, 42 U.S.C. Section 9601(14).

E. "WDNR" means the Wisconsin Department of Natural Resources.

F. "National Contingency Plan" shall be used as that term is used in Section 105 of CERCLA, 42 U.S.C. Section 9605.

G. "Operable Unit" as it applies to this Facility is a source control action for remediation of on-site wastes and contaminated sub-surface soils.

H. "Parties" means the United States of America and the Respondents.

I. "Record of Decision" or "ROD" means the U.S. EPA approved remedy selected to be implemented at the Facility, signed by the Regional Administrator of U.S. EPA, Region V, on September 17, 1990, concurred in by the State, and attached as Appendix I.

J. "Respondents" means Waste Management of Wisconsin, Incorporated ("WMI") and Uniroyal Plastics Company, Incorporated ("Uniroyal").

K. "Response Costs" means any costs incurred by U.S. EPA pursuant to 42 U.S.C. Sections 9601 et seq.

L. "Section 106 Administrative Record" means the Administrative Record which includes all documents considered or relied upon by U.S. EPA in preparation of this Administrative Order. The Section 106 Administrative Record Index is a listing of all documents included in the Section 106 Record, as set forth in Appendix II.

M. "State" means the State of Wisconsin.

N. "United States" means the United States of America.

O. "Work" means the activities to be undertaken by Respondents in accordance with this Administrative Order and appendices hereto.

IV.

FINDINGS OF FACT AND DETERMINATIONS

A. The Hagen Farm site is a Facility within the meaning of Section 101(9) of CERCLA, 42 U.S.C. Section 9601(9). The Facility is located at 2318 County highway A, Dane County, Wisconsin.

B. The Facility consists of a total of approximately 10 acres in an area of rural surrounding that is dominated largely by sand and gravel mining and agriculture. Soil and gravel mining operations are located northwest, northeast and south of the Facility. The Stoughton Airfield is located adjacent to the northwest corner of the Facility. County Highway "A" passes just south of the Facility.

C. The Facility was operated as a sand and gravel pit prior to the late 1950s. The gravel pit then used for disposal of waste material from the late 1950s to the mid-1960s. The former disposal area encompasses approximately five acres of land located in the southwestern portion of the Facility which previously had been used as a gravel quarry. The quarry was believed to be approximately 14 to 18 feet deep at the time of waste disposal. The Facility operator accepted municipal wastes, waste solvents and other various organic materials including acetone, butyl acetate, 1-2-dichloroethylene, tetrahydrofuran, solid vinyl, sludge material containing methylethyl ketone and xylenes, and toluene. In a 103(c) notification submitted to the U.S. EPA by Uniroyal, Inc., in June 1981, Uniroyal indicated that F003 and F005 wastes,

which are hazardous wastes within the meaning of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. 6901, also were disposed of at the Facility.

D. During the period that the Facility was operated as a disposal facility, the property was owned by Nora Sundby, who is now deceased. The Facility was operated by City Disposal Corporation ("City Disposal"), an antecedent corporation of Waste Management of Wisconsin ("WMWI"). City Disposal was also the transporter of much of the waste that was deposited at the Facility. On November 30, 1977, the Facility was conveyed by the estate of Ms. Sundby to Orrin N. and Ida Mae Hagen. On February 24, 1987, Orrin Hagen conveyed ownership of the Facility to WMWI. The Facility property is currently owned by WMWI. The U.S. Rubber Company Plant at Stoughton, Wisconsin, generated industrial waste, some of which was disposed at the Facility from sometime in 1962 until August of 1966. The U.S. Rubber Company subsequently changed its name to Uniroyal, Incorporated. The Stoughton plant is now owned and operated by Uniroyal Plastics Company, Inc., which is the successor in interest to Uniroyal, Inc. in this matter. Waste materials generated at the Stoughton plant which were or may have been disposed at the Facility included solid chunks of vinyl and some organic solvents, such as toluene, acetone, xylene, tetrahydrofuran, and methyl ethyl ketone.

E. Beginning in November 1980, in response to complaints received from local residents, the WDNR began conducting groundwater sampling at nearby private water supply wells. Sampling of the on-Site monitoring wells during the period 1980-1986 indicated certain organic compounds were present in the groundwater, including benzene, ethylbenzene, tetrahydrofuran, xylenes, and toluene. In addition, nearby private water supplies on adjacent properties have also shown detectable levels of volatile organic compounds ("VOCs"). The

private wells located on the Facility had been impacted by acetone, tetrahydrofuran, vinyl chloride, xylene, trans 1,2-dichlorethene, and trichloroethylene.

F. In 1983, the State of Wisconsin brought an enforcement action for abatement of a public nuisance against WMWI and Uniroyal. At the same time, nearby residents at the Facility brought a civil action against WMWI and Uniroyal, seeking civil damages for reduced property values and potential health hazards resulting from groundwater and well contamination. The State of Wisconsin obtained a dismissal of its 1983 enforcement action against WMWI and Uniroyal after the Facility was listed on the National Priorities List ("NPL"). In 1986, the parties to civil litigation brought by the nearby residents to the Facility against WMWI and Uniroyal reached a settlement.

G. The Facility was proposed for inclusion on the NPL on September 18, 1985. The Facility was placed on the NPL in July of 1987. Subsequently, WMWI and Uniroyal, the two Respondents named by U.S. EPA in connection with the Facility to date, entered into an Administrative Order by Consent (U.S. EPA Docket No. VW 87-C-016, dated September 14, 1987) (the "Consent Order") with the U.S. EPA and the WDNR. In the Consent Order, WMWI and Uniroyal agreed to conduct a Remedial Investigation and Feasibility Study ("RI/FS") at the Facility. Accordingly, in July of 1988, upon U.S. EPA approval, in consultation with the WDNR, of the required Work Plans, fieldwork at the Facility commenced.

H. Two operable units, which are being conducted concurrently, have been defined for the Facility. Operable Unit ("OU") I, which is the Source Control Operable Unit ("SCOU"), is intended to address waste refuse and sub-

surface soils ("Waste/sub-Soils") at disposal area A and the two smaller disposal areas B and C. OU II, which is the Groundwater Control Operable Unit ("GCOU"), is intended to address the contaminated groundwater at the Facility. The OU approach was agreed upon after discussions among U.S. EPA, WDNR, and Respondents during the early phase of the implementation of the Work Plan for the RI.

I. The RI for the SCOOU was completed in early 1989, and the Technical Memorandum for the SCOOU was submitted in March 1989. The RI for the GCOU was initiated in July 1989 and the Technical Memorandum for GCOU was submitted in February 1990. Currently, additional field activities to define the extent of plume migration are ongoing. The RI report for the GCOU, including the Endangerment Assessment, is scheduled for completion in July 1991. The ROD for the GCOU is scheduled for early 1992.

J. In June, 1990, U.S. EPA provided the FS and the Proposed Plan for the source control remedial action to the public. An opportunity for public comment was provided. Comments were to be submitted in writing to the U.S. EPA by August 10, 1990, or orally at the public meeting held in Stoughton, Wisconsin, on August 2, 1990. The Respondents were allowed to submit comments on the Proposed Plan for the final remedy during this public comment period.

K. Considering the Proposed Plan for remedial action and the public comments received, U.S. EPA, with concurrence by the State, selected a source control remedy for remediation of on-site waste and sub-surface soils at the Facility. U.S. EPA's decision is summarized in the Record of Decision ("ROD") signed by the U.S. EPA Administrator, Region V, on September 17, 1990. The ROD is attached as Appendix I. The selected remedy includes the following: consolidation of non-native materials from disposal areas B and C into

disposal area A with subsequent backfilling of disposal areas B and C with clean soil material; installation of a WDNR NR 504 solid waste cap over disposal area A after consolidation; In-situ vapor extraction of the waste refuse and sub-surface soils in disposal area A; off-gas treatment through carbon adsorption; installation and maintenance of a fence around disposal areas A, B, and C during remedial activities; and deed and access restrictions to prevent installation of drinking water wells within vicinity of the disposal areas and to protect the cap.

L. U.S. EPA's ROD includes a discussion of U.S. EPA's reasons for the selection of the source control remedy. The remedial action ("RA") has been determined to be a cost-effective remedial action which provides adequate protection of public health, welfare, and the environment, and meets all Federal and more stringent State ARARs.

M. Contaminants are being released to the environment through the following pathways: volatilization of contaminants through the soil to the air; direct contact; and release of contaminants from waste, and soils to the groundwater. These releases provide potential for exposure to humans as well as terrestrial and aquatic life.

N. Analyses of soils, waste, and fill materials performed during the RI revealed the presence of numerous hazardous substances as defined in Section 101(14) of CERCLA, including ethylbenzene, toluene, xylene, 2-butanone, tetrahydrofuran, vinyl chloride, arsenic, lead, and mercury. These contaminants are present in the subsurface soils at and above the water table and continue to be released into the groundwater. Some compounds detected in the soils and waste and their associated maximum concentrations are listed below.

WASTE AND SOIL ANALYTICAL DATA

(ug/kg)

<u>Chemical</u>	<u>Maximum</u>
<u>SEMI-VOLATILES</u>	
Naphthalene	46
1,4-Dichlorobenzene	280
Diethylphthalate	48
Di-n-Butylphthalate	690
Fluoranthene	67
Butylbenzylphthalate	18,000
bis(2-Ethylhexyl) Phthalate	120,000
Di-n-Octyl Phthalate	5,300
Phenanthrene	67
Unknown Semivolatiles	1,261,985
<u>PESTICIDES/PCBS</u>	
Dieldrin	11.6
4,4'-DDE	18.2
4,4'-DDD	128
4,4'-DDT	19.2
PCB-1248	338
PCB-1254	222
PCB-1242	284

O. Preliminary data developed during analyses of the groundwater performed during the RI for the SCOU revealed the presence of numerous hazardous substances as defined in Section 101(14) of CERCLA, including ethylbenzene, toluene, xylene, tetrahydrofuran, 2-Butanone, and metals. Some

compounds detected in groundwater and their associated maximum concentrations are listed below.

GROUNDWATER ANALYTICAL DATA	
<u>Chemical</u>	<u>Maximum</u>
<u>VOLATILES</u>	
2-Butanone	4,400,000
Ethylbenzene	4,400
Tetrahydrofuran	630,000
Toluene	550
Vinyl chloride	77
Total Xylenes	35,000
<u>SEMI-VOLATILES</u>	
Naphthalene	8
1,4-Dichlorobenzene	10
Diethylphthalate	5
Phenol	5,600
Benzoic Acid	29,000
Benzyl Alcohol	26
bis(2-Ethylhexyl) Phthalate	34
Di-n-Octyl Phthalate	5
4-Chloro-3-Methylphenol	7
2,4-Dimethylphenol	330
4-Methylphenol	6,100
Bis(2-Chloroisopropyl) Ether	19
<u>METALS</u>	
Arsenic	25.2
Barium	1,570

Lead

6

Mercury

6.5

This preliminary groundwater data indicates that the landfill that is part of this Facility is the source of the contamination found in the groundwater. U.S. EPA anticipates that data regarding contamination of the groundwater will be further developed during the RI for the GCOU.

P. From the late 1950s to the mid-1960s "hazardous substances" as defined in Section 101(14), of CERCLA, 42 U.S.C. Section 9601(14), were deposited, stored, disposed of, placed, or located at the Facility.

Q. The past, present, and/or future migration of hazardous substances from the Facility constitute an actual, and/or threatened "release" into the environment as defined in Section 101(22) of CERCLA, 42 U.S.C. Section 9601(22), and may present an imminent and substantial endangerment to the public health or welfare or the environment.

R. From the late 1950s to the mid-1960s, City Disposal Corporation was the "owner" and/or "operator" of the Facility as defined in Section 101(20) of CERCLA, 42 U.S.C. Section 9601(20), and "owned" and/or "operated" the Facility within the meaning of Section 107(a)(2) of CERCLA, 42 U.S.C. Section 9607(a)(2). City Disposal Corporation was subsequently purchased by Waste Management of Wisconsin, Incorporated. The Facility property is currently owned by WMWI.

S. The U.S. Rubber Company plant at Stoughton, Wisconsin, generated industrial waste, some of which was deposited at the Facility beginning sometime in 1962 and continuing through August of 1966. The U.S. Rubber company subsequently changed its name to Uniroyal, Incorporated. The

Stoughton plant is now owned and operated by Uniroyal Plastics Company, Incorporated, which is the successor in interest to Uniroyal, Incorporated.

T. Respondents are "persons" as defined in Section 101(21) of CERCLA, 42 U.S.C. Section 9601(21), and, based upon information available to U.S. EPA, each Respondent generated and/or transported hazardous substances which were disposed of at the Facility, making each Respondent a "liable person" with respect to the Facility within the meaning of Section 107 of CERCLA, 42 U.S.C. Section 9607. The responses to information requests and other documents supporting the Respondents' liability for performance of the actions required by this Administrative Order are contained in the Section 106 Administrative Record for the Administrative Order, which supports the issuance of the Administrative Order under Section 106 of CERCLA. The Index for the Section 106 Administrative Record is attached as Appendix II.

U. The actions required by this Administrative Order are necessary to protect the public health or welfare or the environment, and are consistent with the National Contingency Plan, 40 CFR Part 300 et seq., as amended.

V.

ORDER

Based upon the foregoing Findings of Fact and Determinations, and pursuant to Section 106(a) of CERCLA, 42 U.S.C. Section 9606(a), it is hereby ordered that Respondents perform the work as described below and in the Scope of Work ("SOW") attached hereto, and made an enforceable part hereof, as Appendix III.

A. Work to be Performed

1. The Respondents shall, within forty-five (45) days of the effective date of this Order, submit to U.S. EPA a Remedial Design and Remedial Action

("RD/RA") Work Plan to implement all portions of the recommended alternative outlined in the Record of Decision for the Facility and in the Scope of Work (Appendix III).

2. The RD/RA Work Plan shall be written in sufficient detail to fully address all necessary design parameters of the recommended alternative, shall be consistent with the SOW and shall be consistent with U.S. EPA's June 1986 Superfund Remedial Design and Remedial Action Guidance. In addition, the RD/RA Work Plan shall include, but not be limited to, the following elements:

- A Field Operating Plan for Waste Consolidation
- A Contingency Plan for Waste Consolidation
- A Sampling and Testing Plan for Clay

The RD/RA Work Plan and other documents submitted by the Respondents shall demonstrate that the Respondents can properly conduct the actions required by this Order.

3. U.S. EPA shall review and approve/disapprove the RD/RA Work Plan. If the RD/RA Work Plan is acceptable, approval shall be granted, in writing, and the RD/RA Work Plan shall become an integral and enforceable element of this Order. If the RD/RA Work Plan is disapproved, U.S. EPA shall state to the Respondents, in writing, the reasons for disapproval. Respondents shall, within thirty (30) calendar days of receipt of U.S. EPA's letter stating disapproval, incorporate all changes requested by U.S. EPA into the RD/RA Work Plan and submit the Amended RD/RA Work Plan to U.S. EPA. If approved, the Amended RD/RA Work Plan shall become an integral and enforceable element of this Order. Failure to incorporate all changes requested by U.S. EPA into the RD/RA Work Plan shall constitute a violation of the terms of this Order.

4. Respondents shall begin implementation of the RD/RA Work Plan immediately upon receipt of written approval by U.S. EPA. Unless otherwise directed by U.S. EPA and as mandated by Section 122(e)(6) of CERCLA, the Respondents shall not commence field activities until they receive written approval of the RD/RA Work Plan by U.S. EPA. Respondents shall complete the tasks outlined in the RD/RA Work Plan in accordance with the schedule outlined in the attached SOW. Failure of the Respondents to properly implement all aspects of the RD/RA Work Plan shall be deemed to be a violation of the terms of this Order.

5. The Site Health and Safety Plan developed pursuant to this Order shall be in accordance with U.S. EPA's guidance and protocol. After approval of the Site Health and Safety Plan by U.S. EPA Representatives, Respondents shall implement the Plan during all phases of activity at the Facility.

B. Respondents' Contractor and Remedial Design

All remedial work to be performed by the Respondents pursuant to this Administrative Order shall be under the direction and supervision of a qualified professional engineer. Prior to the initiation of remedial work at the Facility, the Respondents shall notify U.S. EPA and the WDNR, in writing, of the name, title, and qualifications of any proposed engineer to be used in carrying out the remedial work to be performed pursuant to this Administrative Order. Selection of any such engineer shall be subject to approval by U.S. EPA in consultation with WDNR.

VI.

QUALITY ASSURANCE

Respondents shall use quality assurance, quality control, and chain of custody procedures in accordance with U.S. EPA's "Interim Guidelines and

Specifications For Preparing Quality Assurance Project Plans" (QAM-005/80) and subsequent amendments. Prior to the commencement of any sampling and analysis under this Administrative Order, Respondents shall submit a Quality Assurance Project Plan ("QAPP") to U.S. EPA and WDNR that is consistent with the Scope of Work, Work Plans, and applicable guidelines. Prior to the development and submittal of a QAPP, Respondents shall attend a pre-QAPP meeting sponsored by U.S. EPA to identify all monitoring and data quality objectives. U.S. EPA, after review of Respondent's QAPP and WDNR's comments thereon, will notify the Respondents of any required modifications, conditional approval, disapproval, or approval of the QAPP. Upon notification of disapproval or any need for modifications, Respondents shall make all required modifications to the QAPP within thirty (30) calendar days of receipt of such notification.

Respondents shall ensure that U.S. EPA personnel or their authorized representatives are allowed access to any laboratory utilized by the Respondents in implementing the Order. Respondents shall ensure that any such laboratory will analyze samples submitted by U.S. EPA or WDNR for quality assurance monitoring.

VII.

FACILITY ACCESS, SAMPLING, DOCUMENT AVAILABILITY

A. To the extent that the Facility or other areas where work under this Order is to be performed is under ownership or possession by someone other than the Respondents, Respondents shall obtain all necessary access agreements. In the event that after using their best efforts Respondents are unable to obtain such agreements, Respondents shall immediately notify U.S. EPA and U.S. EPA may then, at its discretion, assist Respondents in gaining

access, to the extent of their authority and as provided by appropriate U.S. EPA guidance.

B. Respondents shall provide access to the Facility to U.S. EPA employees, contractors, agents, and consultants, as well as to representatives of the WDNR, at all reasonable times, and shall permit such persons to be present and move freely about the area in order to conduct inspections, take samples, and to conduct other activities which U.S. EPA or WDNR determine to be necessary. Respondents shall ensure that U.S. EPA and WDNR personnel and authorized representatives are allowed to oversee all remedial activities, and are granted access to the laboratory(ies) and to the records of the laboratory(ies) utilized by the Respondents for analyses required under the Work Plan.

C. The Respondents shall make available to U.S. EPA and the WDNR the results of all sampling and/or test or other data generated by the Respondents with respect to the implementation of this Administrative Order, and shall submit these results in monthly progress reports as described in Section IX of this Administrative Order.

D. At the request of U.S. EPA or the WDNR, the Respondents shall allow split or duplicate samples to be taken by U.S. EPA, the WDNR and/or their authorized representatives, of any samples collected by the Respondents pursuant to the implementation of this Administrative Order. The Respondents shall notify U.S. EPA and the WDNR not less than fourteen (14) calendar days in advance of any sample collection activity. In addition, U.S. EPA and the State shall have the right to take any additional samples that U.S. EPA or the WDNR deem necessary.

VIII.

PROGRESS REPORTS

A. The Respondents shall provide to U.S. EPA and WDNR written monthly progress reports which: (1) describe the actions which have been taken toward achieving compliance with this Administrative Order during the previous month as well as such actions, data, and plans which are scheduled for the next month; (2) include all results of sampling and tests and all other data received by the Respondents during the course of the Work; (3) include all plans and procedures completed under the RD/RA Work Plan during the previous month; and (4) include sections detailing anticipated problems/recommended solutions, problems encountered/ resolved, deliverables submitted, upcoming events/activities planned, key personnel changes, and scheduling. These progress reports are to be submitted to U.S. EPA and WDNR by the tenth day of every month following the effective date of this Administrative Order.

B. If the date for submission of any item or notification required by this Administrative Order falls upon a weekend or state or federal holiday, the time period for submission of that item or notification is extended to the next working day following the weekend or holiday.

C. Upon the occurrence of any event during the performance of the Work which, pursuant to Section 103 of CERCLA, requires reporting to the National Response Center, Respondents shall immediately orally notify the U.S. EPA Remedial Project Manager ("RPM") and WDNR, or, in the event of unavailability of the U.S. EPA RPM, the Emergency Response Branch, U.S. EPA Region V, in addition to the reporting required by Section 103. Within fourteen (14) calendar days after the onset of such an event, Respondents shall furnish to the U.S. EPA and WDNR a written report setting forth the events which occurred and the measures taken, and to be taken, in response thereto. Within thirty

(30) calendar days after the conclusion of such an event, Respondents shall submit a report to U.S. EPA and WDNR setting forth all actions taken to respond to the event.

IX.

REMEDIAL PROJECT MANAGER/PROJECT COORDINATORS

A. U.S. EPA will designate a Remedial Project Manager ("RPM") and WDNR will designate a Project Coordinator for the Facility, to observe and monitor the progress of any activity undertaken pursuant to this Administrative Order. The RPM shall have the authority lawfully vested in an RPM by the National Contingency Plan, 40 CFR Part 300, as amended. The Respondents shall also designate a Project Coordinator who shall have primary responsibility for implementation of the Work at the Facility.

B. To the maximum extent possible, except as specifically provided in this Administrative Order, communications between the Respondents and U.S. EPA concerning the terms and conditions of this Administrative Order shall be made between Respondents' Project Coordinator and the RPM.

C. Within seven (7) calendar days after the effective date of this Administrative Order, the Respondents shall provide written notice to the U.S. EPA RPM, the U.S. EPA's Office of Regional Counsel, and WDNR in writing, of the name, address and telephone number of the designated Project Coordinator and an alternate Project Coordinator.

X.

RETENTION AND AVAILABILITY OF INFORMATION

A. The Respondents shall make available to U.S. EPA and WDNR, and shall retain during the pendency of this Administrative Order, and for six years after termination of this Order, all records and documents in their

possession, custody, or control which relate to the performance of this Administrative Order, including, but not limited to, documents reflecting the results of any sampling, tests, or other data or information generated or acquired by the Respondents or on behalf of the Respondents with respect to the Facility. At the conclusion of the six year period following termination of this Order, the Respondents shall provide written notice to the U.S. EPA RPM, the U.S. EPA's Office of Regional Counsel, and WDNR, ninety (90) calendar days prior to the destruction of such documents, and upon request by U.S. EPA or WDNR, the Respondents shall relinquish custody of the documents to U.S. EPA or the WDNR.

B. The Respondents may assert business confidentiality claims covering part or all of the information provided in connection with this Administrative Order in accordance with Section 104(e)(7)(F) of CERCLA, 42 U.S.C. Section 9604(e)(7), and pursuant to 40 CFR Section 2.203(b) and applicable State law.

C. Information determined to be confidential by U.S. EPA will be afforded the protection specified in 40 CFR Part 2, Subpart B and, if determined to be entitled to confidential treatment under State law by WDNR, afforded protection under State law by WDNR. If no such claim accompanies the information when it is submitted to the U.S. EPA and WDNR, the public may be given access to such information without further notice to the Respondents.

D. Information acquired or generated by the Respondents in performance of the Work that is subject to the provisions of Section 104(e)(7)(F) of CERCLA, 42 U.S.C. Section 9604(e)(7)(F), shall not be claimed as confidential by the Respondents.

XI.

PENALTIES FOR NONCOMPLIANCE

The Respondents are advised, pursuant to Section 106(b) of CERCLA, 42 U.S.C. Section 9606(b), that willful violation or subsequent failure or refusal to comply with this Order, or any portion thereof, may subject the Respondents to a civil penalty of no more than \$25,000 per day for each day in which such violation occurs, or such failure to comply continues. Failure to comply with this Administrative Order, or any portion thereof, without sufficient cause may also subject the Respondents to liability for punitive damages in an amount equal to three times the amount of any costs incurred by the U.S. EPA as a result of the Respondents' failure to take proper action, pursuant to Section 107(c)(3) of CERCLA, 42 U.S.C. Section 9607(c)(3).

XII.

OTHER CLAIMS

U.S. EPA and WDNR are not to be construed as parties to, and do not assume any liability for, any contract entered into by the Respondents in carrying out the activities pursuant to this Administrative Order. The proper completion of the Work under this Administrative Order is solely the responsibility of the Respondents.

XIII.

NOTICES

Whenever, under the terms of this Administrative Order, notice is required to be given, or a report or other document is required to be forwarded by one party to another, such correspondence shall be directed to the following individuals at the addresses specified below:

As to the United States or U.S. EPA;

- a. Jeffrey A. Cahn
Assistant Regional Counsel
Attn: Hagen Farm Site

As to WDNR

Theresa Evanson
State Project Coordinator
Hagen Farm Site

(5CS-TUB-3)
 Office Regional Counsel
 U.S. Environmental Protection
 Agency
 230 South Dearborn Street
 Chicago, Illinois 60604

Department of Natural
 Resources
 Box 7921
 Madison, Wisconsin 53707

and;

- b. Jae B. Lee
 Remedial Project Manager
 Hagen Farm Site
 Remedial and Enforcement Response Branch (5HS-11)
 U.S. Environmental Protection
 Agency
 230 South Dearborn Street
 Chicago, Illinois 60604

XIV.

CONSISTENCY WITH NATIONAL CONTINGENCY PLAN

The U.S. EPA has determined that the Work, if properly performed as set forth in Section V hereof, is consistent with the provisions of the National Contingency Plan pursuant to 42 U.S.C. Section 9605.

XV.

RESERVATION OF RIGHTS

A. Nothing contained herein shall be construed to prevent U.S. EPA from seeking legal or equitable relief to enforce the terms of this Administrative Order, or from taking the legal or equitable action it deems appropriate and necessary, or from requiring the Respondents in the future to perform additional activities pursuant to CERCLA, 42 U.S.C. Section 9601 et seq., or any other applicable law.

B. U.S. EPA reserves its right to bring an action against Respondents pursuant to Section 107 of CERCLA, 42 U.S.C. Section 9607, for recovery of any costs incurred by U.S. EPA in connection with the Hagen Farm Facility.

XVI.

MODIFICATION

Except as provided for herein, there shall be no modification of this Administrative Order without written approval of U.S. EPA.

XVII.

EFFECTIVE AND TERMINATION DATES

A. This Administrative Order shall be effective March 15, 1991.

B. When the Respondents determine that they have completed the Work, they shall submit to U.S. EPA and WDNR a Notification of Completion. Upon receipt of such Notification, U.S. EPA and WDNR shall schedule final inspections and close out activities as described in the June 1986 U.S. EPA Superfund Remedial Design and Remedial Action Guidance. Such activities shall include, at a minimum, the following:

- 1) "Prefinal Construction Conference" by U.S. EPA, WDNR and the Respondents;
- 2) "Prefinal Inspection" by U.S. EPA and WDNR;
- 3) Preparation of a "Prefinal Inspection Report" by the Respondents.
- 4) "Final Inspection" by U.S. EPA, WDNR, and the Respondents.

The final remedial action report shall summarize the work performed, any modification to the RD/RA Work Plan, and the performance levels achieved. The summary shall include or reference any supporting documentation.

Upon receipt of the final remedial action report, U.S. EPA and WDNR shall review the accompanying report and any other supporting documentation and conduct any appropriate site inspection. U.S. EPA shall issue a Certification of Completion upon its determination that the Respondents have

satisfactorily completed the Work and have achieved standards of performance required under this Administrative Order for this Operable Unit.

XVIII.

ACCESS TO ADMINISTRATIVE RECORD

The Section 106 Administrative Record supporting the above Findings of Fact and Determinations is available for review on weekdays between the hours 8:00 a.m. and 5:00 p.m., at the U.S. EPA, Region V, 230 South Dearborn Street, Chicago, Illinois 60604. Please contact Jeffrey A. Cahn, Assistant Regional Counsel at 312-886-6670, for review of the Section 106 Administrative Record at this location. The 106 Administrative Record is also available for review at the Stoughton Public Library, 304 S. 4th St., Stoughton, Wisconsin 53589.

XIX.

OPPORTUNITY TO CONFER

A conference has been scheduled for March 13, 1991, 10:00 am in the northwest corner conference room on the 11th floor, U.S. EPA Region V, 230 South Dearborn Street, Chicago, Illinois. You may attend this conference to discuss with U.S. EPA this Administrative Order and its applicability to you. You may appear in person and/or by an attorney or other representative.

Any comments which you have regarding this Administrative Order, its applicability to you, the correctness of any factual determinations upon which the Order is based, the appropriateness of any action which you are ordered to undertake, or any other relevant and material issue must be reduced to writing and submitted to U.S. EPA on or before March 13, 1991. Any such writing should be directed to Jeffrey A. Cahn, at the address cited above.

Respondent shall provide notice in writing to Jeffrey A. Cahn, at the address cited above, stating its intentions to comply with the terms hereof.

Such notice shall be received by U.S. EPA on or before the effective date of this Administrative Order. In the event any Respondent fails to provide such notice, said Respondent shall be deemed not to have complied with the terms of this Administrative Order.

Respondents are hereby notified that U.S. EPA will take any action pursuant to Section 106 (a) of CERCLA, which may be necessary in the opinion of U.S. EPA for the protection of public health or welfare or the environment, and Respondents may be liable under Section 107 (a) of CERCLA, for the costs of these government actions.

IT IS SO ORDERED:

BY: 

 David A. Ullrich

DATE: 3/7/91

Director, Waste Management Division
U.S. EPA, Region V

EFFECTIVE DATE: March 15, 1991

Appendix I
Record of Decision (ROD)

**HAGEN FARM SITE, WI
SOURCE CONTROL OPERABLE UNIT**

DECLARATION FOR THE RECORD OF DECISION

Site Name and Location

**Hagen Farm Site, Source Control Operable Unit
Dane County, Wisconsin**

Statement of Basis and Purpose

This decision document represents the selected remedial action for the Hagen Farm site, in Dane County, Wisconsin, Source Control Operable Unit, which was chosen in accordance with the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA) and, to the extent practicable, the National Oil and Hazardous Substance Pollution Contingency Plan (NCP).

This decision is based on the Administrative Record file for the Hagen Farm site.

The State of Wisconsin concurs with the selected remedy.

Assessment of the Site

Actual or threatened releases of hazardous substances from this site, if not addressed by implementing the response action selected in this Record of Decision (ROD), may present an imminent and substantial endangerment to public health, welfare, or the environment.

Description of Remedy

This source control operable unit is the first of two operable units for the site. The selected remedial action for this operable unit addresses the source of contamination by remediation of on-site wastes and contaminated sub-surface soils.

The major components of the selected remedy include:

- * Within the larger area of contamination (AOC), consolidation of non-native materials from disposal areas B and C into disposal area A with subsequent backfilling of disposal areas B and C with clean soil material;**
- * Installation of a WDNR NR 504 solid waste cap over disposal area A after consolidation;**

- * In-Situ Vapor Extraction of the waste refuse and sub-surface soils in disposal area A;
- * Off-gas treatment through carbon adsorption;
- * Regeneration of carbon from the off-gas treatment;
- * Installation and maintenance of a fence around disposal areas A, B, and C during remedial activities; and
- * Deed and access restrictions to prevent installation of drinking water wells within vicinity of the disposal areas and to protect the cap.

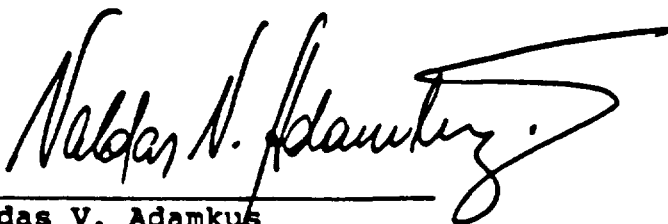
The following component of the selected remedy will be evaluated during the implementation of in-Situ Vapor Extraction:

- * Determination of the optimum amount of essential nutrients (e.g., moisture, nitrogen, oxygen, and phosphate) to be added to the waste refuse and sub-surface soils in order to promote natural microbial activities, without decreasing the mass removal of the volatile organic compounds through in-Situ Vapor Extraction.


STATUTORY DETERMINATIONS

The selected remedy is protective of human health and the environment, complies with Federal and State environmental requirements that are legally applicable or relevant and appropriate to the remedial action, and is cost-effective. This remedy utilizes permanent solutions and alternative treatment technologies to the maximum extent practicable and satisfies the statutory preference for remedies that employ treatment that reduces toxicity, mobility, or volume as a principal element.

Because this remedy will result in hazardous substances remaining on-site, a review will be conducted within five years after commencement of remedial action to ensure that the remedy continues to provide adequate protection of human health and the environment.



Valdas V. Adamkus
Regional Administrator


September 17, 1990.

Date

**RECORD OF DECISION
DECISION SUMMARY
HAGEN FARM SITE
SOURCE CONTROL OPERABLE UNIT
DANE COUNTY, WISCONSIN**

**Prepared By:
U.S. Environmental Protection Agency
Region V
Chicago, Illinois
September, 1990**

**SUMMARY OF REMEDIAL ALTERNATIVE SELECTION
HAGEN FARM SITE, SOURCE CONTROL OPERABLE UNIT
DANE COUNTY, WISCONSIN**

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**ROD SUMMARY
HAGEN FARM SUPERFUND SITE, SOURCE CONTROL OPERABLE UNIT
DANE COUNTY, WISCONSIN**

SITE LOCATION AND DESCRIPTION

The Hagen Farm Site (the "Site") is located at 2318 County Highway A, approximately one mile east of the City of Stoughton, Dane County, Wisconsin. The 10-acre Site is situated in a rural surrounding that is dominated largely by sand and gravel mining and agriculture. Soil and gravel mining operations are located northwest, northeast and south of the Site. The Stoughton Airfield is located adjacent to the northwest corner of the Site. County Highway "A" passes just south of the Site (See Figure 1).

The City of Stoughton's municipal wells are located approximately two miles to the west, and eight private wells are located within 1,200 feet of the Site. The private wells located at the Site are no longer in use. Approximately 350 people reside within one mile of the Site.

The Site is located in the Yahara River watershed, in an area of flat to gently rolling topography. The Yahara River is located approximately 1.5 miles to the west and flows in a southerly direction. The land surface generally slopes toward the Yahara River from topographically high areas located to the northeast and east. Surface water drainage in the area is generally poorly developed, apparently due to permeable surface soils. The only substantial surface water bodies in the area are a pond located approximately 1/2 mile south of the Site and the Yahara River. There is no designated Wisconsin State significant habitat, or historic landmark site directly or potentially affected. There are no endangered species within close proximity of the Site.

The Site is located in an area dominated by glacial outwash deposits, which extend approximately one-half mile to the northeast. These deposits are dominated by sand and gravel. Beyond this, ground moraine and occasional drumlins are encountered. Lacustrine deposits associated with Glacial Lake Yahara are located approximately one-eighth mile south. Bedrock, primarily sandstones and dolomites, underlie the glacial deposits in this area. Bedrock generally slopes from the west to southwest, toward a preglacial valley associated with the Yahara River. The depth to bedrock ranges from 50 to 80 feet near the Site.

The current Site topography is the result of sand and gravel mining and waste disposal activities. Prior to these activities, the ground surface probably sloped from the existing topographically high area located west and northwest toward the southeast and east. The excavated area in the northwest corner of the property is flat. This flat area is separated by a ridge from the water-filled depression located to the northeast.

Within the Site's larger "Area of Contamination (AOC)", waste disposal took place within three subareas. These subareas are A (6 acres, located in the

southern portion of the Site), B and C (1.5 acres each, located in the northeastern portion) (See Figure 2). All three Areas reside within the Site's formally defined AOC. The Site has been covered with soil and is partially vegetated with grasses and tall trees.

SITE HISTORY AND ENFORCEMENT ACTIVITIES

The Site was operated as a sand and gravel pit prior to the late 1950's. Observations suggest gravel operations encompassed an area bounded by the current access road to the east, the former Schroeter property boundary to the west and the current property boundary to the north (See Figure 2). Mining operations reportedly terminated approximately 14 to 18 feet below ground surface. Excavation may have ceased at this depth due to the presence of groundwater, more fine grained materials, or a change in sand and gravel quality.

The gravel pit was then used for disposal of waste materials from the late 1950s to the mid-1960s. During the period that the Site was operated as a disposal facility, the property was owned by Nora Sundby. The Site was operated by City Disposal Corporation. City Disposal Corporation was subsequently purchased by Waste Management of Wisconsin, Incorporated ("WMWI"). City Disposal was also the transporter of much of the waste that was deposited at the Site. The Site is currently owned by WMWI. It is known that Uniroyal, Incorporated ("Uniroyal") generated industrial waste, some of which was deposited at the Site beginning sometime in 1962 and continuing through August 1966.

Waste solvents and other various organic materials, in addition to the municipal wastes, were disposed of at the Site, including acetone, butyl acetate, 1-2-dichloroethylene, tetrahydrofuran, solid vinyl, sludge material containing methylethyl ketone and xylenes, and toluene. In a 103(c) Notification submitted to the United States Environmental Protection Agency ("U.S. EPA") by Uniroyal, in June 1981, Uniroyal indicated that F003 and F005 wastes, which are hazardous wastes within the meaning of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. 6901, also were disposed of at the Site. This site stopped accepting waste in 1966, prior to regulation of hazardous waste disposal by RCRA Subtitle C.

Beginning in November 1980, in response to complaints received from local residents, the Wisconsin Department of Natural Resources ("WDNR") began conducting groundwater sampling at nearby private water supply wells. Sampling of the on-Site monitoring wells during the period 1980-1986 indicated certain organic compounds were present in the groundwater, including benzene, ethylbenzene, tetrahydrofuran, xylenes, and toluene.

In addition, nearby private water supplies on adjacent properties have also shown detectable levels of volatile organic compounds (VOCs). The private wells located on the Site had been impacted by acetone, tetrahydrofuran, vinyl chloride, xylene, trans 1,2-dichloroethene, and trichloroethylene.

In 1983, the State of Wisconsin brought an enforcement action for abatement of a public nuisance against WMWI and Uniroyal. At the same time, nearby

residents at the Site brought a civil action against WMWI and Uniroyal, seeking civil damages for reduced property values and potential health hazards resulting from groundwater and well contamination. The State of Wisconsin obtained a dismissal of its 1983 enforcement action against WMWI and Uniroyal after the Site was listed on the National Priorities List ("NPL"). In 1986, the parties to civil litigation brought by the nearby residents to the Site against WMWI and Uniroyal reached a settlement. The exact terms of the settlement were confidential. It is known, however, that one of the terms of the settlement required WMWI to purchase the Site property from Orrin Hagen, as well as other property located adjacent to the Site. Upon acquiring these properties, WMWI razed the structures constructed thereon.

The Site was proposed for inclusion on the NPL on September 18, 1985. The Site was placed on the NPL in July of 1987. Subsequently, WMWI and Uniroyal, the two potentially responsible parties ("PRPs") named by U.S. EPA in connection with the Site to date, entered into an Administrative Order by Consent (U.S. EPA Docket No. VW 87-C-016, dated September 14, 1987) (the "Consent Order") with the U.S. EPA and the WDNR. In the Consent Order, WMWI and Uniroyal agreed to conduct a Remedial Investigation and Feasibility Study ("RI/FS") at the Site. Accordingly, in July of 1988, upon U.S. EPA approval, in consultation with the WDNR, of the required Work Plans, fieldwork at the Site commenced.

Two operable units, which are being conducted concurrently, have been defined for the Site. Operable Unit ("OU") I, which is the Source Control Operable Unit ("SCO"), is intended to address waste refuse and sub-surface soils ("Waste/sub-Soils") at disposal area A and the two smaller disposal areas B and C. OU II, which is the Groundwater Control Operable Unit ("GOO"), is intended to address the contaminated groundwater at the Site. The OU approach was agreed upon after discussions among U.S. EPA, WDNR, and PRPs during the early phase of the implementation of the Work Plan for the RI.

The RI for the SCO was completed in early 1989, and the Technical Memorandum for the SCO was submitted in March 1989. The RI for the GOO was initiated in July 1989 and the Technical Memorandum for GOO was submitted in February 1990. Currently, additional field activities to define the extent of plume migration are ongoing. The RI report for the GOO, including the Endangerment Assessment, is scheduled for completion in July 1991. The ROD for the GOO is scheduled for early 1992.

COMMUNITY RELATIONS ACTIVITIES

A Community Relations Plan for the Site was finalized in July 1988. This document lists contacts and interested parties throughout the local and government community. It also establishes communication pathways to ensure timely dissemination of pertinent information. The RI/FS and the Proposed Plan for the SCO were released to the public in July 1990. All of these documents were made available in the information repositories maintained at the Stoughton Public Library and Klongland Realty. An administrative record file containing these documents and other site-related documents was

placed at the Stoughton Public Library. The notice of availability of these documents was published in the Stoughton Courier-Hub and Madison Capital Times on July 5, 1990. Press releases were also sent to all local media. A public comment period was held from July 11, 1990 to August 10, 1990. In addition, a public meeting was held on August 2, 1990 to present the results of the RI/FS and the preferred alternative as presented in the Proposed Plan for the Site. All comments which were received by U.S. EPA during the public comment period, including those expressed verbally at the public meeting, are addressed in the Responsiveness Summary which is the third section of this ROD.

A public meeting was held on July 27, 1989 to explain the findings of the RI and the operable unit approach. A fact sheet was developed in conjunction with this meeting. Advertisements were placed to announce the meeting and a press release was sent to all local media. Prior to the public meeting, U.S. EPA representatives held a separate briefing for Town officials.

A press release was sent to local media on March 27, 1989 to update the community on the progress of Dane County, Wisconsin Superfund sites, including Hagen Farm.

An RI "Kickoff" meeting was held on July 14, 1988 to explain the RI process. A fact sheet was developed in conjunction with this meeting. Advertisements were placed in the Madison Capital Times and Stoughton Courier-Hub and a press release was sent to all local media.

Upon the signing of the Consent Order in July 1987, U.S. EPA held a 30-day public comment period. A press release was sent to all local media and advertisements were placed.

IV SCOPE AND ROLE OF RESPONSE ACTION

This response action is a final source control operable unit and is consistent to the maximum extent practicable with Section 300.430 (e)(3) of the National Contingency Plan ("NCP"). This final source control operable unit is being implemented to protect human health and the environment by controlling the migration and reducing the volume of contaminants from the Waste/sub-Soils to the groundwater. This ROD addresses the source of groundwater contamination, namely the waste mass in the AOC consisting of subareas A, B, and C and the underlying contaminated sub-soils.

This source control action, by reducing the toxicity and controlling the migration of contaminants, is fully consistent with all future site work, including the ongoing groundwater investigation at the Site. In addition, this action will positively affect the cost of the final groundwater remedy by limiting the amount of groundwater that is likely to become contaminated from this source.

The media that poses the greatest risk is considered to be the groundwater contaminant plume. The contaminated Waste/sub-Soils are considered to be a long-term threat to human health and environment, primarily as a principal

source of groundwater contamination. The VOCs in the Waste/sub-Soils are considered to be the principal threat for this SCOU.

The groundwater contamination problem will be addressed in a future GCOU, Record of Decision which is expected to be the final action for the Site.

The FS identified two remedial objectives for the SCOU based on the data obtained during the RI and the possible exposure routes identified. The objectives identified in the FS are:

- 1) To reduce or minimize direct contact with contaminated waste and soils; and,
- 2) To reduce or minimize release of contaminants to the groundwater.

V SUMMARY OF SITE CHARACTERISTICS

In March, 1989, a Technical Memorandum for the SCOU was completed under the guidance and oversight of U.S. EPA and WDNR. The Remedial Investigation (i.e., Technical Memorandum #1) for the SCOU was to determine the nature and extent of contamination at the source, and evaluate possible exposure pathways. The report summarized all soil-gas, test-pit, soil, air, and on-site groundwater analytical data that had been collected. This report should be consulted for a more thorough description of the site characteristics.

The following are the results of RI at the Site:

- Based on the geophysical survey, soil-gas, and test-pit survey, it appears that most of the waste disposal activity occurred in disposal area A. Disposal area A encompasses approximately six acres (100 feet long and 400 feet wide). The wastes within disposal area A are buried to a depth of two to three feet near the eastern edge, to a depth of 16 feet near the center. Eight feet is the average overall thickness of buried wastes. The volume of waste for disposal area A is estimated at 67,650 cubic yards. The test-pit survey and refuse borings indicate that the type of waste present in disposal area A includes plastic sheeting, paper-coated plastic, paint sludge, grease, rubber, and municipal waste, such as wood, glass, paper, and scrap metal. No drums were discovered during the test-pit excavation activity.

Based upon refuse borings, test-pits, and groundwater table measurements, the bottom of the waste refuse material is estimated to be 10 to 15 feet above the seasonal high water table in disposal area A. The volume of unsaturated sub-waste soils for disposal area A is approximately 112,000 cubic yards.

Disposal areas B and C seem to contain only scattered domestic wastes. A geophysical survey, test-pits and soil gas tests revealed a small quantity of municipal waste in disposal areas B and C. It appears that disposal areas B and C were not used for the disposal of industrial

waste.

Surficial soils are thin or absent over most of the waste refuse areas. The waste is unsaturated. Contaminant movement through the waste occurs as surface water percolates into the waste mass and dissolved contaminants infiltrate through underlying unsaturated soils to the water table. Soil erosion could contribute to some movement of contaminants, but is not considered a primary pathway because the Site has a relatively flat, vegetated topography.

- During the soil-gas survey, VOCs detected include acetone, benzene, toluene, 2-hexanone, ethylbenzene, and xylenes. The distribution of VOCs in disposal area A appears to be fairly scattered, however, no detects occurred in the northwest section of disposal area A.
- To determine if the waste was "characteristic" according to RCRA Subtitle C, an Extraction Procedure ("EP") toxicity and Flammability test was conducted on a composite sample of refuse boring and soil boring spoils. Results of the EP toxicity characteristic test indicate that the waste refuse does not exhibit EP toxicity as defined by Wisconsin Administrative Code ("WAC") NR 181.
- Compounds detected in the source characterization wells (groundwater beneath disposal area A) include tetrahydrofuran, xylenes, ethylbenzene, toluene, and 2-butanone. The highest concentrations of these compounds, such as tetrahydrofuran (630 parts per million (ppm)), xylenes (35 ppm), and 2-butanone (4400 ppm) were observed in well SCW4, near the southern end of disposal area A. Semi-VOCs, such as benzoic acid (29 ppm), 4-methylphenol (6 ppm), and phenol (6 ppm) were also detected in the groundwater at the Site. Table 1 summarizes the VOC and semi-VOC groundwater concentration data.
- The results of the air analysis indicated low concentrations of a number of VOCs, generally below 10 parts per billion (ppb), in each of the samples collected. Two compounds, methylene chloride and trichlorofluoromethane, were detected at higher concentrations in the samples (approximately 100 ppb). However, these compounds were also identified in associated trip blanks. Air VOC concentrations measured from downwind location were not substantially different from those measured at the other locations. These data do not identify an atmospheric gradient of VOCs across the waste area, because the type and magnitude of VOCs identified from upwind samples were similar to downwind samples.
- The screened data for the waste refuse indicate that waste refuse material at the Site contains semi-VOCs, such as butylbenzylphthalate (18 ppm), and bis(2-ethylhexyl)phthalate (120 ppm). Low levels of polychlorinated biphenyls ("PCBs"), in the range of 300 ppb were also detected in the waste refuse (See Table 2).
- Surface water does not appear to be a direct pathway for contaminant migration, due to a lack of an established surface water drainage

system. Furthermore, based on surface water quality results and inferred groundwater flow paths, it appears the drainage ditch east of the Site and Surby's pond to the south are not groundwater discharge points.

The results of the RI at the Site indicate that the waste refuse materials in disposal area A have been and continue to be a source for sub-surface soil and groundwater contamination.

The investigation for the groundwater contamination at the Site is expected to be completed by the end of 1990. Initial results of the investigation indicate that the groundwater flows to the south and that the contaminant plume extends south of the pond located one-half mile from the Site. The exact boundary of the southern edge of the plume has not yet been determined. Seven residential wells located downgradient of the Site were sampled on August 1990 for any potential impact from the contaminant plume. More details of the nature and extent of the groundwater contaminant plume will be addressed in the subsequent GCOU.

VI SUMMARY OF SITE RISKS

This section qualitatively describes the risks posed by contaminants in Waste/sub-Soils to human health and the environment. Based on the historical findings and on-site groundwater data, which exceeded the drinking water and groundwater quality standards of the U.S. EPA and the WQNR, respectively, it is determined that remedial action is needed to address the source of the groundwater contamination. Because this remedy is a source control operable unit, a final baseline risk assessment for the Site is not available. No quantitative risk numbers have been calculated for exposure to site contaminants. However, qualitative risk information is organized and outlined below to demonstrate that action is necessary to stabilize the site and prevent the degradation of the groundwater. The baseline risk assessment for the Site will be conducted later during the GCOU phase.

The greatest risk present at the Site is from the groundwater contamination. However, the source of the groundwater contamination is the contamination found in the Waste/sub-Soils at the Site.

The following is a qualitative discussion of the site risks.

(A) Contaminants of Concern

The following chemicals have been detected in soil gas, leachate and on-site groundwater wells at concentrations above background, and screened waste refuse analyses and can be inferred to be present in source wastes.

VOCs

. Ethylbenzene
. Toluene

. Benzyl alcohol
. Phenol

Semi-VOCs

. bis (2-chloroisopropyl) ether
. bis (2-ethylhexyl) phthalate

. Xylenes	. 4-Methylphenol	. 4-chloro-3-methylphenol
. Tetrahydrofuran	. 2,4-Dimethylphenol	. diethylphthalate
. 2-Butanone	. Benzoic Acid	. di-n-octyl phthalate
. Vinyl chloride	. Naphthalene	. 1,4-dichlorobenzene
. Acetone	. Dieldrin	. 4,4-DDE
. Benzene	. PCBs	

In addition, inorganic compounds such as lead and barium were also detected at the Site at concentrations above background.

Table 3 compares the concentrations of these contaminants detected in groundwater at the Site with Federal and State Standards. As indicated in this table, the levels of contaminants found at the source characterization wells far exceed Federal and State standards. For the case of Tetrahydrofuran, the most frequently detected compound at the Site, the level (630,000 ppb) is 12,600 times higher than the State groundwater enforcement standard (50 ppb). This data clearly indicates that the Waste/sub-Soils are acting as a source of groundwater contamination. This source will continue to load contaminants to the groundwater unless addressed by a remedial action.

(B) Exposure Assessment

The exposure assessment identifies potential pathways and routes for contaminants of concern to reach the receptors. The potential exposure pathways are: exposure to air emissions from the landfill, direct contact exposure to contaminated waste and soils, and exposure to contaminated groundwater.

At present, the wastes do not appear to be a source of exposure via inhalation of volatilized chemicals. A preliminary evaluation of ambient air quality at the Site boundary did not identify an elevated level of VOC emissions. In addition, active generation of landfill gas, which can facilitate VOC emissions, is not occurring at the Site. Based on these preliminary air quality data, it appears that the air contaminants released from the Site to the downwind residents do not pose a risk to human health or the environment.

Wastes at the Site are covered with approximately 1 to 3 ft of soil, much of which supports thick vegetation. However, some areas of the Site are not vegetated and show exposed waste material. Therefore, a potential exists for direct human contact with waste. The most likely population group which may come in contact with the Site is anticipated to be periodic trespassers. This population group is small, because the Site is secured from incidental trespass by a fence and because the location is in a rural area which is not heavily populated. These individuals may incur contaminant exposure by skin contact with waste and by incidental ingestion of waste material adhering to hands.

Contaminants contained in the waste have affected groundwater in the vicinity of the Site. Data obtained from on-Site groundwater indicates that substantial amounts of contaminants have been released from the

Waste/sub-Soils to the groundwater. Present risks from the groundwater are unacceptable. As shown in Table 3, the contaminants in the on-Site groundwater exceed Federal and State Standards. Continued leaching of contaminants from the Waste/sub-Soils to the groundwater will result in continued unacceptable risks. Should the contaminants migrate to existing private wells, or in the unlikely event of future site development involving the installation of a water supply well, contaminant exposure via groundwater use and consumption may occur. More detailed evaluation of both current and future potential human health and environment risks associated with contaminated groundwater exposure will be addressed in subsequent steps of GCOU.

Implementation of the selected remedy as presented by this SOCU will reduce exposure to contaminated soils, control air emissions, and minimize or reduce contaminant migration to the groundwater.

(C) Environmental Assessment

The natural habitat existing prior to sand and gravel mining operations at the Site was destroyed. At present, the waste disposal area is covered with a layer of soil material which supports vegetation primarily consisting of grasses and other herbaceous plants, with some tall trees. This area is likely frequented by wildlife including birds, small mammals and deer. Although an inventory of plant and animal species has not been performed, the Site is not known to be inhabited by rare or endangered species. Land in the vicinity has been developed for agricultural, mining and commercial purposes. Sensitive ecological habitats (e.g., wetlands) are not in close proximity to the Site. The Site is not in a floodplain. The potential adverse impacts of Site wastes on the surrounding ecology are not considered appreciable in comparison to the loss of habitat which historically occurred during the active sand and gravel mining phase of the Site.

VII DOCUMENTATION OF SIGNIFICANT CHANGES

No significant changes have been made since the publication of the FS and Proposed Plan in July 1990.

VIII DESCRIPTION OF ALTERNATIVES

Alternatives for the remediation of contaminated Waste/sub-Soils, were developed to achieve the following goals:

- minimize the potential for direct contact with the contamination;
- minimize the potential for migration of waste/sub-Soils contaminants into the groundwater.

A comprehensive list of appropriate remedial technologies was identified for Source Control. These technologies were screened based on their cost,

implementability and effectiveness, characteristics of the Site and the characteristics of the contaminants. Technologies which satisfied the initial screening requirements were refined to form remedial action alternatives. The five alternatives developed are detailed below.

The source control alternatives are:

- * Alternative 1: No Action;
- * Alternative 2: Capping;
- * Alternative 3: In-Situ Vapor Extraction and Capping;
- * Alternative 4: Waste Consolidation with Biological Treatment, Vapor Extraction and Capping; and,
- * Alternative 5: Waste Excavation with on-Site Incineration, Vapor Extraction and Capping.

A description of each of these options follows:

ALTERNATIVE 1: NO ACTION

This alternative is evaluated as required by the NCP to determine the public health, public welfare and environmental consequences of taking no further action.

ALTERNATIVE 2: CAPPING

Non-native materials (i.e., solid waste materials) as determined based on visual inspection, located within disposal areas B and C would be consolidated into disposal area A before cap construction begins, although additional fill material may be required to satisfy minimum slope requirements. Grading would be accomplished using conventional construction equipment. The final grade would be constructed so that precipitation would be directed away from the source waste. Drainage swales would be constructed to direct runoff to match existing surface flow patterns. After the desired slope is obtained, the necessary cap materials would be placed.

In the FS, three types of caps were considered: capping to upgrade the existing cover to meet the requirements for facilities without an operating license (i.e., an NR 181.44(12) cap); upgrading the existing cover to meet the requirements of a solid waste cap (i.e., an NR 504.07 or Subtitle D cap); and upgrading the existing cover to meet the closure requirements for facilities with an operating license (i.e., an NR 181.44(13) or Subtitle C cap). Figures 4 through 6 describe typical details of these caps.

Closure of the Site with a RCRA Subtitle C cap is a potentially relevant and appropriate requirement, because RCRA wastes (i.e., F003 and F005 listed waste) were disposed of at the Site. Because this alternative does

not involve any treatment to reduce the mobility, toxicity, or volume of waste, it was determined that the more impermeable capping option afforded by Subtitle C and NR 181 was both relevant and appropriate under this alternative. Therefore, only the Subtitle C cap will be evaluated for this alternative during the comparative analyses. No treatment of contaminants is involved in this alternative.

The cap would be designed to cover disposal area A. The area to be capped is approximately 240,000 sq ft (5.5 acres). The capital costs of this alternative is approximately \$2,751,000, and annual Operation and Maintenance (O&M) cost is \$8,899. The 30-year Present Worth (PW) cost is \$2,888,000. The amount of time necessary to implement this alternative would be 7 months.

ALTERNATIVE 3: IN-SITU VAPOR EXTRACTION AND CAPPING

In this alternative, the Waste/sub-Soils in disposal area A would be treated using In-Situ Vapor Extraction (ISVE). Gas is extracted from the Waste/sub-Soils through extraction wells placed strategically at the Site. The gas travels from the wells through header pipes using a blower. The off-gases would be treated and discharged to the atmosphere.

Vapor extraction is used primarily for treating VOC contamination. A vapor extraction system is relatively inexpensive and allows for process flexibility during remediation activities. The major costs for this technology are the installation of extraction and injection wells. The number of wells used may vary during operation to improve system efficiency. By treating the Waste/sub-Soils in place without excavation, release of untreated contaminants to the atmosphere is avoided.

Prior to the implementation of in-Situ Vapor Extraction, non-native materials from disposal areas B and C will be consolidated to disposal area A. Approximately 37,000 cubic yards of fill is needed to bring area A up to required slopes before cap placement. Consolidation of solid waste materials from areas B and C will provide some of the required fill material and will ensure that all site waste materials are properly confined. Then a low permeability cap, which meets the requirements of NR 504.07, WAC, will be installed over disposal area A (see Figure 5). The NR 504.07 cap would reduce leachate production by reducing infiltration and would control moisture content in the Waste/sub-Soils to improve the Vapor Extraction system performance.

As stated for Alternative 2, a RCRA Subtitle C cap would be potentially relevant and appropriate. The U.S. EPA and WDNR have determined that for this particular Alternative, the Subtitle C cap, while relevant, is not appropriate because construction of the ISVE system would impair the integrity of a Subtitle C cap. An NR 504.07 cap will provide an adequate level of protection when combined with treatment and can easily be repaired after installation of the ISVE system.

For the discharge of off-gas emitted from the Vapor Extraction procedure,

Chapter NR 445, WAC, Control of Hazardous Pollutants, is an ARAR. The off-gases would be treated using a carbon adsorption system in order to meet NR 445, WAC. Spent carbon or other residues from the off-gases treatment process will be sent back to the manufacture to be regenerated.

During full-scale ISVE implementation, a treatability study will be performed to determine the feasibility of enhancing the natural biodegradation of organic compounds. The treatability study would be designed to determine the optimum amounts of nutrients (e.g., moisture, oxygen, nitrogen, and phosphate) to be added to the Waste/Sub-soils to promote biological activity without interfering with ISVE treatment.

The volume of waste to be treated is approximately 67,650 cubic yards, and the volume of sub-surface soils to be treated is approximately 112,000 cubic yards. The cap would be designed to cover disposal area A within the larger AOC. The area to be capped is approximately 240,000 sq ft (5.5 acres). The capital costs of this alternative is approximately \$2,679,400, based upon a vapor extraction system of 25 Injection/Extraction wells. The average annual O&M cost is \$29,530, and the 30-year PW cost is approximately \$3,299,000. The amount of time necessary to implement this alternative, including ISVE, would be 5 years.

ALTERNATIVE 4: WASTE CONSOLIDATION WITH BIOLOGICAL TREATMENT, VAPOR EXTRACTION AND CAPPING

This alternative involves consolidating waste from disposal areas A, B and C into an upgraded facility within the AOC. The upgraded facility would be used as a treatment/disposal cell. Waste would be consolidated using conventional excavation equipment. Dewatering should not be necessary, because the water table is below the predicted depth of refuse. Once the treatment/disposal area has been upgraded, a high permeability soil cover will be placed over the waste to allow infiltration of precipitation, and to minimize direct contact risks during the implementation of this alternative. Leachate produced in the cell would be recirculated back through the waste to promote biological activity within the cell. Nutrients and microorganisms may be added to leachate to enhance biodegradation. The excess leachate produced during and at the end of the implementation will be treated and discharged to a surface water. The RCRA Subtitle C cap would be installed over the treatment cell after treatment is completed.

Under this alternative, a large depression would be created by waste excavation from disposal area A exposing contaminated subsurface soils. This depression would be filled with imported clean fill materials followed by a NR 504.07 solid waste cap. The remaining contaminated subsurface soils would be treated with in-Situ Vapor Extraction.

For the construction of the retrofitted unit within the AOC, the State and Federal hazardous waste landfill requirements, NR 181, WAC, and 40 CFR 264.301 were determined to be both relevant and appropriate. This determination was made because an entirely new treatment/disposal cell

would be constructed within a minimally contaminated area of the AOC. The double lined treatment/disposal cell would provide maximum protection for treatment of the contaminants. After completion of treatment, a RCRA Subtitle C (NR 181, WAC) cap would be placed over the treatment/disposal unit. The Subtitle C cap would be relevant and appropriate because the integrity of the cap could be maintained and it would provide maximum protection to the treatment/disposal unit. The LDR requirements are not ARARs for this alternative, because no "placement" of waste occurs. Upgrading an existing landfill facility to consolidate wastes within the AOC does not constitute placement, according to the NCP.

For the discharge of excess leachate produced from this alternative, the NR 105, WAC, Surface Water Quality for Toxic Substances, is an ARAR. The excess leachate would be treated in order to meet NR 105 standards. A toxicity characteristics leaching procedure ("TCLP") test will be conducted for the treatment sludge to determine whether further treatment is necessary for disposal in a RCRA compliant landfill in order to comply with Land Disposal Restrictions ("LDRs").

The volume of waste to be consolidated and treated is approximately 67,650 cubic yards from disposal area A and non-native materials from disposal areas B and C. The capital costs of this alternative is approximately \$12,894,000. The average annual O&M cost is \$82,300, and the 30-year PW cost is approximately \$14,129,000. The amount of time necessary to implement this alternative would be 10 years.

ALTERNATIVE 5: WASTE EXCAVATION WITH ON-SITE INCINERATION, VAPOR EXTRACTION AND CAPPING

This alternative incorporates waste excavation with on-site incineration and disposal. The excavation activities are the same as described in Alternative 4. On-Site materials handling, staging, and storage may also be required. Waste would be characterized prior to incineration. Treatment residuals, such as ash and scrubber water, would be further treated, if necessary, and disposed of off-Site in accordance with the LDRs.

Under this alternative, a large depression would be created by waste excavation exposing contaminated sub-surface soils in disposal area A. This depression would be filled with imported clean fill materials and the non-native materials from disposal areas B and C, followed by a Solid Waste cap. The contaminated sub-surface soils would be treated with ISVE.

For this alternative, incineration would be done in an incinerator which meets the design requirements of 40 CFR Part 264 Subpart O. A TCLP test will be conducted for the treatment residuals, such as ash and scrubber water, to determine whether further treatment is necessary for disposal in a RCRA compliant landfill in order to comply with LDRs requirement.

The volume of waste to be incinerated is approximately 67,650 cubic yards from disposal area A. The capital costs of this alternative is

approximately \$59,410,000. The average annual O&M cost is \$22,800, and the 30-year PW cost is approximately \$59,858,000. The amount of time necessary to implement this alternative would be 5 years.

IX. SUMMARY OF THE COMPARATIVE ANALYSIS OF ALTERNATIVES

A detailed analysis was performed on the five alternatives using the nine evaluation criteria in order to select a source control remedy. The following is a summary of the comparison of each alternative's strength and weakness with respect to the nine evaluation criteria. These nine criteria are:

- 1) Overall Protection of Human Health and the Environment
- 2) Compliance with Applicable or Relevant and Appropriate Requirements (ARAR's)
- 3) Long-Term Effectiveness and Permanence
- 4) Reduction of Toxicity, Mobility, or Volume through Treatment
- 5) Short-Term Effectiveness
- 6) Implementability
- 7) Cost
- 8) State Acceptance
- 9) Community Acceptance

1. Overall Protection of Human Health and the Environment

Alternative 1, No Action, will not provide protection from risks associated with site contaminants. Groundwater will continue to degrade due to release from the source. Therefore, it will not be discussed any further, since it is not protective and thus, not an acceptable alternative.

Alternatives 2 through 5 will reduce contaminant migration from the waste and minimize any future direct contact threats. Alternative 3 through 5 also provide treatment, thus reducing the amount of contaminants available to move into the groundwater. Continued groundwater impacts from Site contaminants will be reduced by varying degrees by Alternatives 2 through 5. Alternative 3, In-Situ Vapor Extraction, would provide protection from exposure to the waste during implementation because treatment would be in-situ and excavating the waste is minimized. Direct contact exposure to contaminated waste and soils may occur in Alternative 4 and 5 during excavation of disposal area A.

It is not the intent of the proposed alternatives to provide protection from risks which may be associated with contaminants currently existing in the groundwater. Existing groundwater contamination will be addressed in the GOU.

2. Compliance with ARARs

The alternatives would comply with all applicable or relevant and appropriate federal and state environmental laws. No waiver would be

necessary to implement these alternatives.

For Alternative 2, a RCRA Subtitle C multi-layer cap would be installed in order to comply with RCRA cap design standards.

Alternatives 3 and 5 would meet the State landfill closure requirements (i.e., NR 504.07, WAC). Alternative 4 would meet State (NR 181, WAC) and Federal (40 CFR 264.301) hazardous waste landfill requirements. Alternative 4 also would meet the Federal RCRA Subtitle C cap requirement.

NR 445, Control of Hazardous Pollutants, is an ARAR for Alternatives 3, 4 and 5. The extracted off-gases should be treated in order to meet NR 445 emission limit requirements.

Toxic Substances Control Act ("TSCA") is not an ARAR for this site because PCBs detected at the Site, at a maximum level of 300 ppb, is less than 5 ppm.

The full listing of ARARs for the Site is contained in the FS.

3. Long-Term Effectiveness and Permanence

Residual risks associated with direct contact with wastes will be reduced by each alternative through capping, which will minimize direct exposure to wastes. Alternatives 3, 4 and 5 will reduce these risks further by removing and treating, biodegrading or incinerating contaminants. Risks associated with direct contact with waste materials in the future will be minimized through implementation of institutional controls.

Residual risks associated with migration of contaminants from the source to groundwater were considered greatest for Alternative 2, because the wastes are only contained and not treated or destroyed. Alternatives 3 through 5 provide the lowest residual risks to groundwater since the source of groundwater contamination is being treated.

Effectiveness is exclusively dependent on maintaining the integrity of the cap over the long term for Alternative 2. Alternative 2 will not remove contaminants within the waste which could ultimately migrate to the groundwater. Therefore, maintenance of the cap is key to the long-term effectiveness and permanence of this alternative.

Alternative 2 through 4 will be effective in achieving remedial objectives through installation of multi-layer cap, which will limit the infiltration of precipitation through the landfill and preclude the leaching of contaminants into the groundwater.

Alternative 3 will be effective in removing VOCs in the Waste/sub-Soils through vapor extraction. In addition, the installation of the solid waste cap will minimize the leaching of contaminants into the groundwater.

Alternative 4 is anticipated to be effective in achieving remedial objectives through biological degradation. Tests at other sites have

demonstrated that bioremediation is a promising technology. However, its application to this site would have to be verified. Alternative 5 is anticipated to be effective in removing contaminants in the landfill through contaminant destruction (incineration) permanently. Each of Alternatives 2 through 5 are anticipated to require system monitoring and maintenance of the integrity of the landfill cover materials.

4. Reduction of toxicity, mobility or volume (TMV) through Treatment

Alternative 2 does not provide treatment of contaminants to reduce the mobility, toxicity or volume of either the waste or the sub-waste soils.

Alternative 3 through 5 will reduce toxicity, mobility, or volume of the contaminants through treatment of Waste/sub-Soils. Alternative 3, in addition to the multi-layer cap, is estimated to remove as much as 90 percent of the VOCs from the Waste/sub-Soils through the implementation of ISVE, but will not address chemicals with low volatility (e.g., phenols and barium). Because semi-volatiles are not treated by ISVE, treatability tests for degradation of semi-volatiles by microbial methods will be explored during full-scale ISVE implementation. For alternatives 3, 4 and 5, the extracted VOCs in the air stream will eventually be destroyed through the regeneration of the carbon.

Alternative 4 uses leachate recirculation in the waste to promote biological degradation of the contamination. Leachate recirculation could potentially reduce 100 percent of the VOCs contamination, if the process is given enough time. During treatment, the waste will be within a RCRA-type cell where migration of contaminants into the groundwater will be minimized to the extent possible.

Alternative 5 will destroy the VOCs and semi-VOCs present in the Waste permanently through incinerating the waste mass.

5. Short-term Effectiveness

Alternative 2 and 3 can be implemented shortly after design approval because there are no substantive permit requirements. Alternatives 4 and 5 will require the longest time to implement due to the need to meet substantive permit requirements to site new disposal and treatment facilities. At least one, and as many as two to three years, may be required to comply with air and water quality discharge requirements, and perform the necessary treatability studies and test burns. These steps would likely require several years to complete before a full scale system would be operational.

A low risk would be posed to remediation workers and the community during the implementation of Alternative 5 related to potential exposure to incinerator off-gases. This risk is anticipated to be low because monitoring of air contaminants at the Site boundary will be conducted to ensure that acceptable levels are maintained. Alternatives which require excavation of site wastes (Alternatives 4 and 5) may pose a potential risk to remediation workers via direct exposure to wastes, dusts and VOCs.

Alternative 5, Waste Excavation with on-site Incineration, may pose added risks to the community and workers due to increased air emissions. However, the levels of potential contaminant exposure to remediation workers could be minimized by the use of personal protective equipment and standard dust control measures in each alternative. Alternatives 2 and 3 are anticipated to pose minimal risks to remediation workers and the community because they do not involve excavating the waste. Additional risks to the surrounding ecology were not considered appreciable for any of the alternatives.

6. Implementability

Alternative 2 is the easiest to technically implement compared to the other three alternatives. Alternative 3 is somewhat easier to implement than Alternative 4 and 5 because it involves less construction at the Site. The most difficult alternative to implement would be Alternative 5. Difficulties associated with this alternative include accessing a supplementary fuel source on-site, disposing of the ash, supplying sufficient water needed for the scrubbers, and treating and disposing the contaminated scrubber water. Alternatives 3 and 4 would both be relatively straightforward to implement technically. Administratively, alternatives 2 and 3 are easier than alternatives 4 and 5 because they involve less coordination with relevant agencies.

Alternatives 2 through 4 require services and materials that should be available. It is assumed that appropriate material to perform cap construction could be obtained from a borrow source located within four miles of the Site. For Alternative 5, materials and services are available, but their availability is more restricted than the other alternatives.

7. Cost

Alternative 2 involves a capital costs of \$2,751,000, annual Operation and Maintenance (O&M) costs of \$8,899 and a 30-year Present Worth (PW) cost of \$2,888,000.

Alternative 3 involves a capital costs of \$2,679,400, average annual O&M cost of \$29,530, and a 30-year PW cost of \$3,299,000.

Alternative 4 involves a capital costs of \$12,894,000, average annual O&M cost of \$82,300, and a 30-year PW cost of \$14,129,000.

Alternative 5 involves a capital costs of \$59,410,000, average annual O&M cost of \$22,800, and a 30-year PW cost of \$59,858,000.

8. State Acceptance

The State of Wisconsin is in agreement with the U.S. EPA's analyses and recommendations presented in the RI/FS and the proposed plan. The State concurs with the selected alternative (presented in Section X, below).

9. Community Acceptance

The specific comments received and U.S. EPA's responses are outlined in the Attached Responsiveness Summary.

X THE SELECTED REMEDY

As provided in CERCLA and the NCP, and based upon the evaluation of the RI/FS and the nine criteria, the U.S. EPA, in consultation with the WDNR, has selected Alternative 3 as the source control remedial action at the Hagen Farm Site.

The major components of Alternative 3 include the following:

- * Within the larger AOC, the non-native material from the disposal areas B and C will be consolidated in disposal area A. All waste movement will be done within the AOC. No placement will occur. The excavated depression areas within disposal areas B and C will be filled with clean soil and landscaped with vegetation native to the area.
- * The Cap will be placed on disposal area A in compliance with the current requirements of Ch. NR 504.07, WAC for closure of solid waste disposal facilities. The cap will consist of a grading layer, a minimum 2-foot clay layer (compacted to a permeability of 1×10^{-7} cm/s or less), a gravel drainage layer, a frost protective soil layer, and a minimum 6 inches top soil layer (see Figure 5). The cap will be constructed prior to the pilot-scale test and full-scale implementation of the in-Situ Vapor Extraction. The integrity of the cap will be maintained during the ISVE implementation and for many years afterwards.
- * In-Situ Vapor Extraction will be implemented in the contaminated waste refuse and sub-surface soils of disposal area A. Prior to the full-scale implementation of the ISVE, a pilot-scale test will be conducted at the Site to determine the remedial design parameters (i.e., number of extraction and injection wells, the spacing between wells, pumping rate) to achieve maximum removal of the VOC's. The goal of the ISVE extraction will be 90 percent removal of VOCs in the Waste/sub-Soils.

During the full-scale ISVE implementation, a treatability study will be performed to examine the feasibility of adding essential nutrients (e.g., moisture, oxygen, nitrogen, and phosphate) to the Waste/sub-Soils in order to enhance the natural microbial degradation of organic compounds. The study will be designed to determine the optimum amounts of nutrients to be added to the Waste/sub-Soils in order to promote the microactivities, without decreasing the mass removal of the VOCs by ISVE. If determined to be feasible, this treatment will be implemented as part of the remedy.

- * Off-gas emitted from the extraction wells will be treated using a carbon adsorption system in order to meet the air quality standards of the State, NR 445, WAC. The spent carbon or any other residues from this off-gas treatment process will be sent back to the manufacturer to be

regenerated, thus they are not subject to LDRs.

- * Institutional controls would be relied upon to provide additional effectiveness to the remedy. These include zoning restriction, deed notice, and construction of a fence.

XI. STATUTORY DETERMINATIONS

The selected remedy must satisfy the requirements of Section 121 of CERCLA to:

- a. protect human health and environment;
- b. comply with ARARs;
- c. Be cost-effective;
- d. Utilize permanent solutions and alternate treatment technologies to the maximum extent practicable; and,
- e. Satisfy the preference for treatment as a principle element of the remedy or document in the ROD why the preference for treatment was not satisfied.

The implementation of Alternative 3 at the Site satisfies the requirements of CERCLA as detailed below:

a. Protection of Human Health and the Environment

Implementation of the selected alternative will reduce and control potential risks to human health posed by exposure to contaminated waste and air emission by treating contaminated Waste/sub-Soils.

Capping the landfill, in addition to reducing any potential risks posed by direct exposure to contaminated waste, will reduce the infiltration of precipitation through the landfill. Groundwater contaminant loading will thus be reduced. In-Situ Vapor Extraction of the contaminated Waste/sub-Soils will also reduce the groundwater contaminant loading.

No unacceptable short-term risks will be caused by implementation of the remedy. The site workers may be exposed to noise and dust nuisances during construction of the cap. ISVE should not present short-term risks due to VOC emission if properly designed and monitored. A Standard Safety program will manage any short-term risks. Dust control measures and off-gas treatment would reduce those risks as well.

b. Compliance with ARARs

An NR 504.07 Solid Waste cap is an ARAR for Alternative 3. A RCRA Subtitle C cap, while relevant, is not appropriate, as described in Section VIII of this ROD. NR 445, WAC, Control of Hazardous Pollutants, is an ARAR for the discharge of off-gas from the vapor extraction procedure.

Compliance with Wisconsin Statute, Chapter 160 and NR 140, WAC, will be achieved through the selection of the final remedy for the GOU for this

site.

The selected remedy will attain all Federal and State applicable or relevant and appropriate environmental requirements.

c. Cost-Effectiveness

Alternative 3 is a cost-effective alternative providing for protection of human health and the environment and long-term effectiveness. Alternative 2 is somewhat less expensive than the selected remedy, but provides a lesser degree of long-term effectiveness because no treatment of contaminants is involved. Because there is no treatment, there is a greater risk of contaminants entering the groundwater with Alternative 2 over the long term. Alternative 4 is four-times more expensive than Alternative 3 without providing proportional effectiveness. Alternative 5 (Incineration) is the most expensive remedy. Although Alternative 5 provides complete destruction of the contaminants at the Site, Alternative 3 provides similar effectiveness through a combination of treatment and containment of the residuals at far less cost.

d. Utilization of Permanent Solutions and Alternative Treatment Technologies or Recovery Technologies to the Maximum Extent Practicable

U.S. EPA and the State of Wisconsin believe the selected remedy represents the maximum extent to which permanent solutions and treatment technologies can be utilized in a cost-effective manner for the SOOU remedy at the Hagen Farm site. Of the alternatives that are protective of human health and the environment and comply with ARARs, U.S. EPA and the State have determined that the selected remedy provides the best balance of tradeoffs in terms of long-term effectiveness and permanence, reduction in toxicity, mobility or volume achieved through treatment, short-term effectiveness, implementability, cost, also considering the statutory preference for treatment as a principal element and considering State and community acceptance.

Alternative 3 reduces the toxicity, mobility, and volume of the contaminants in the Waste/sub-Soils; complies with ARARs; provides long-term effectiveness; and protects human health and the environment equally as well as Alternatives 4 and 5. In terms of short-term effectiveness, Alternative 3 has the shortest time to implement because there are no substantive permit requirements, as needed for Alternatives 4 and 5. Alternative 3 also poses minimal risk to remediation workers and the community during the implementation period because it does not involve excavating the waste. Alternative 3 will be easier to implement technically because it requires less construction, and administratively because it will require less coordination with relevant agencies. Finally, Alternative 3 costs the least of the protective alternatives that utilize treatment. The major tradeoffs that provide the basis for this selection decision are short-term effectiveness, implementability, and cost. The selected remedy is more reliable and can be implemented more quickly, with less difficulty and at less cost than the other treatment alternatives and

is therefore determined to be the most appropriate solution for the contaminated Waste/sub-Soils at the Hagen Farm site.

The State of Wisconsin is in concurrence with the selected remedy. A public comment was received concerning the cost of the remedy, and this comment is fully addressed in the Responsiveness Summary.

e. Preference for treatment as a principal element

The groundwater contaminant plume will be addressed in a second operable unit. Because the selected alternative treats the VOCs, which are the continuing source of groundwater contamination, it will address the principal threat for the SOU at the Site through treatment and satisfies the preference for treatment as a principal element. In addition, during full-scale implementation of ISVE, enhanced biological treatment of semi-VOCs will be investigated and if feasible, implemented as part of this remedy.



Prepared by Jacobs Engineering Group Inc. Chicago
for the U.S. Environmental Protection Agency, 7/22/90

Drawn AH
Checked DS

Figure 1 Site Location Map Hagen Farm Site Dunkirk Township, Wisconsin

(Not To Scale)

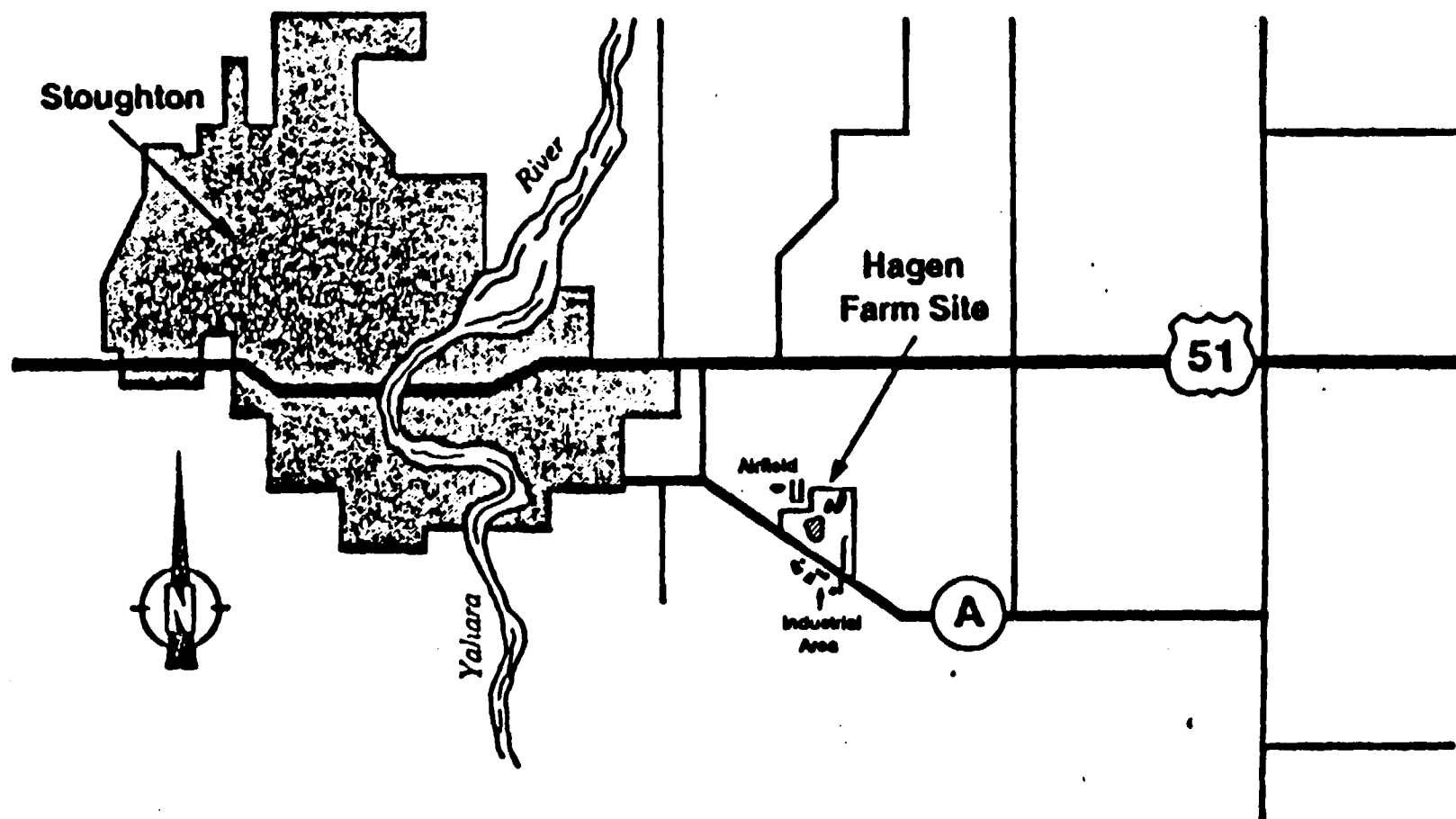


Figure 2
Site Diagram
Hagen Farm Site
Dunkirk Township, Wisconsin
 (Not To Scale)

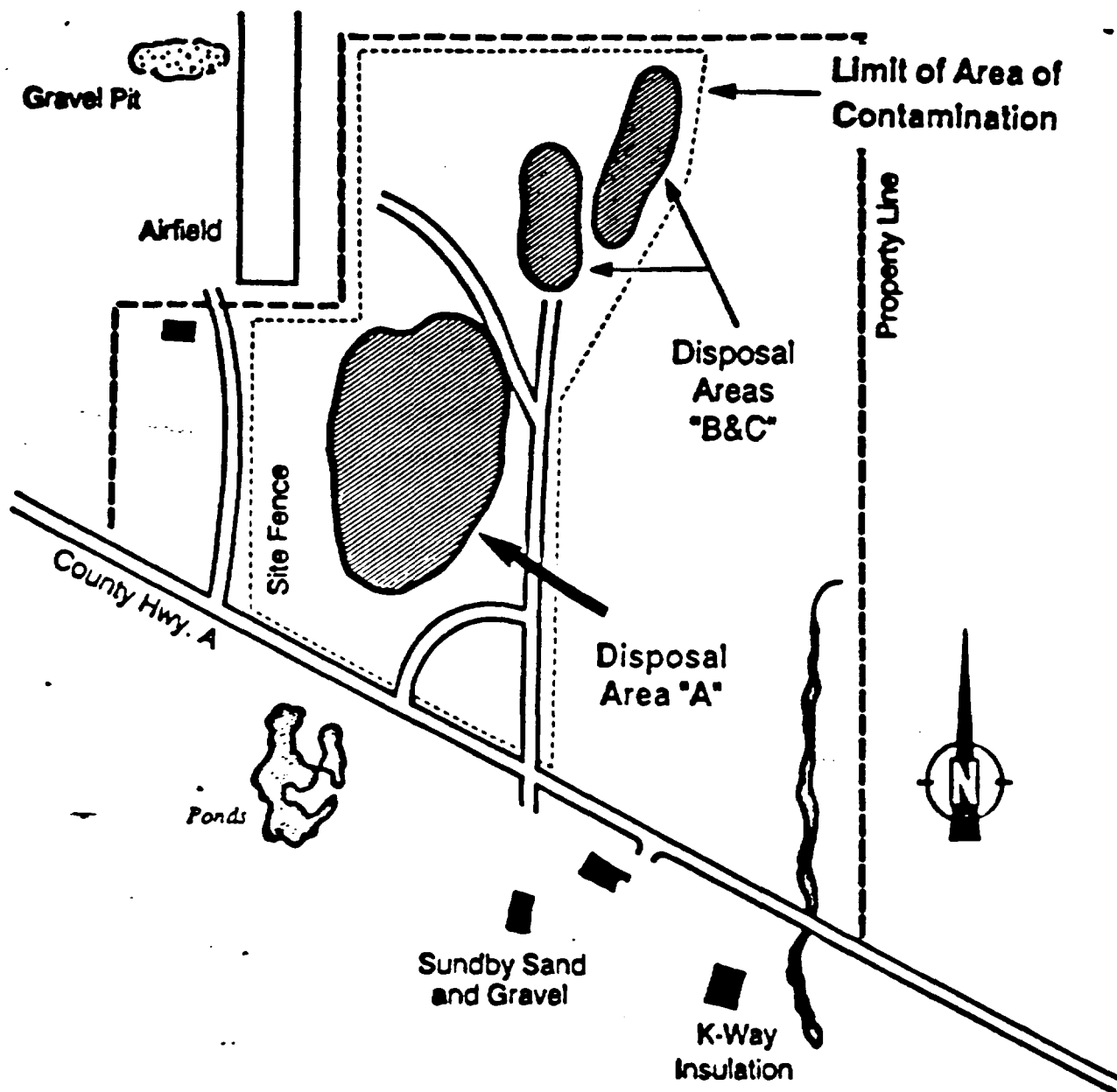
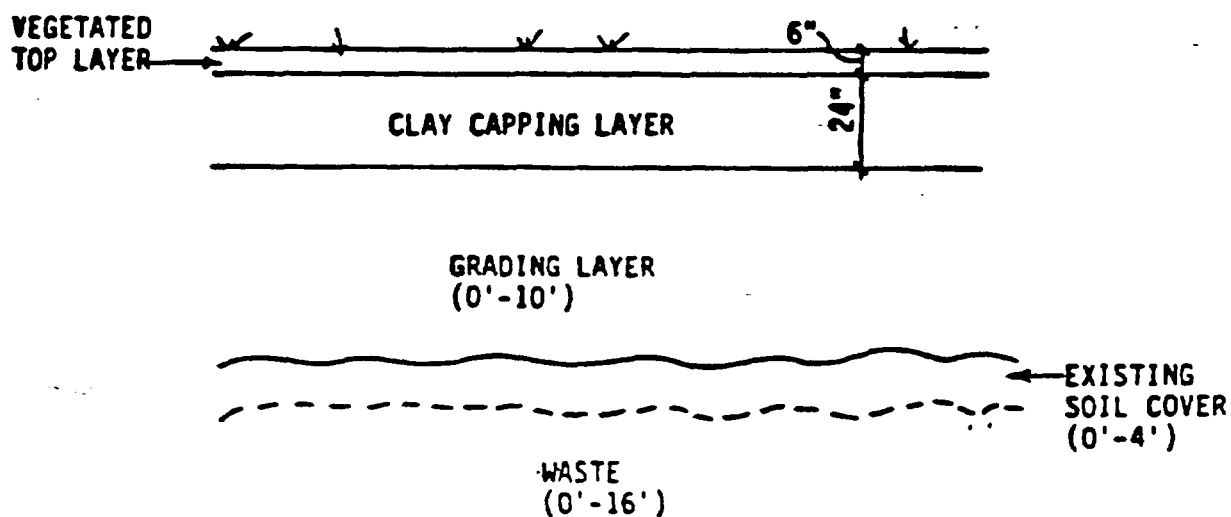


FIGURE 3
SPECIFICATION OF NR 181.44(12) CAP



SCALE: 1" =



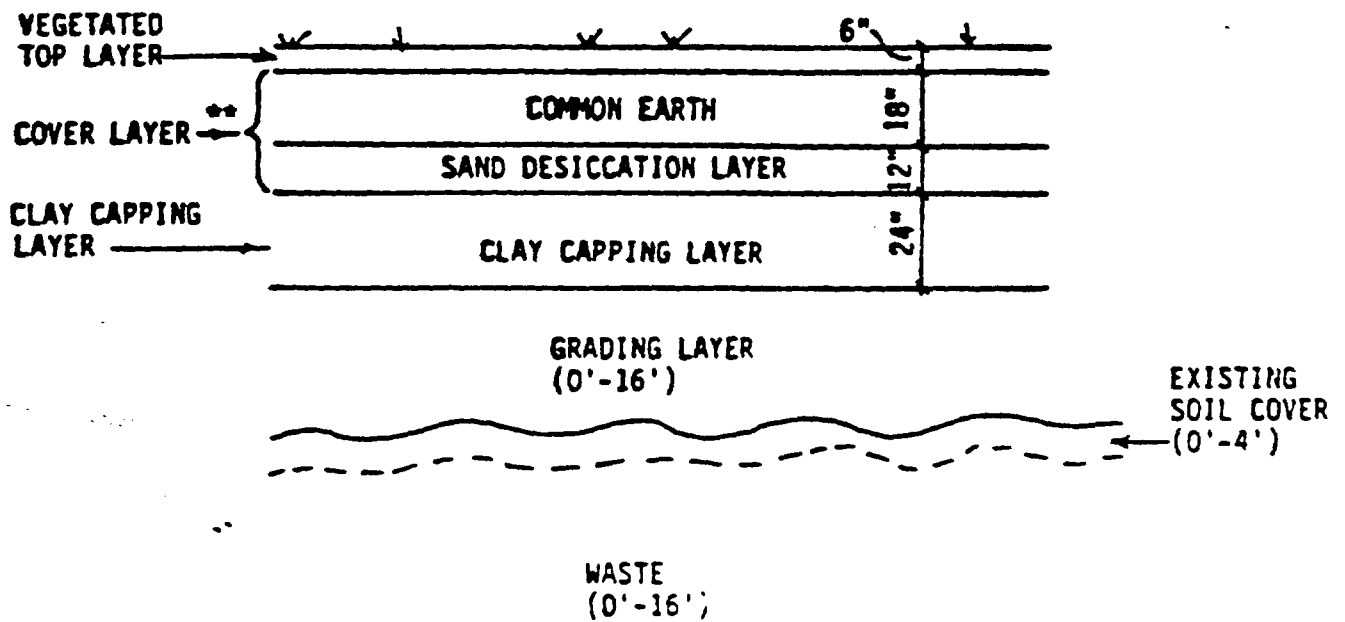
STRUCTURE OF CAP REPAIR
 PER NR 181.44 (12)
 REMEDIAL INVESTIGATION AND
 FEASIBILITY STUDY

Drawn *KE*
 Revisions

Checked *MAJ*

App'd *GEA*
 Date *5-4-90*

FIGURE 4
SPECIFICATION OF NR 504.07 SOLID WASTE CAP

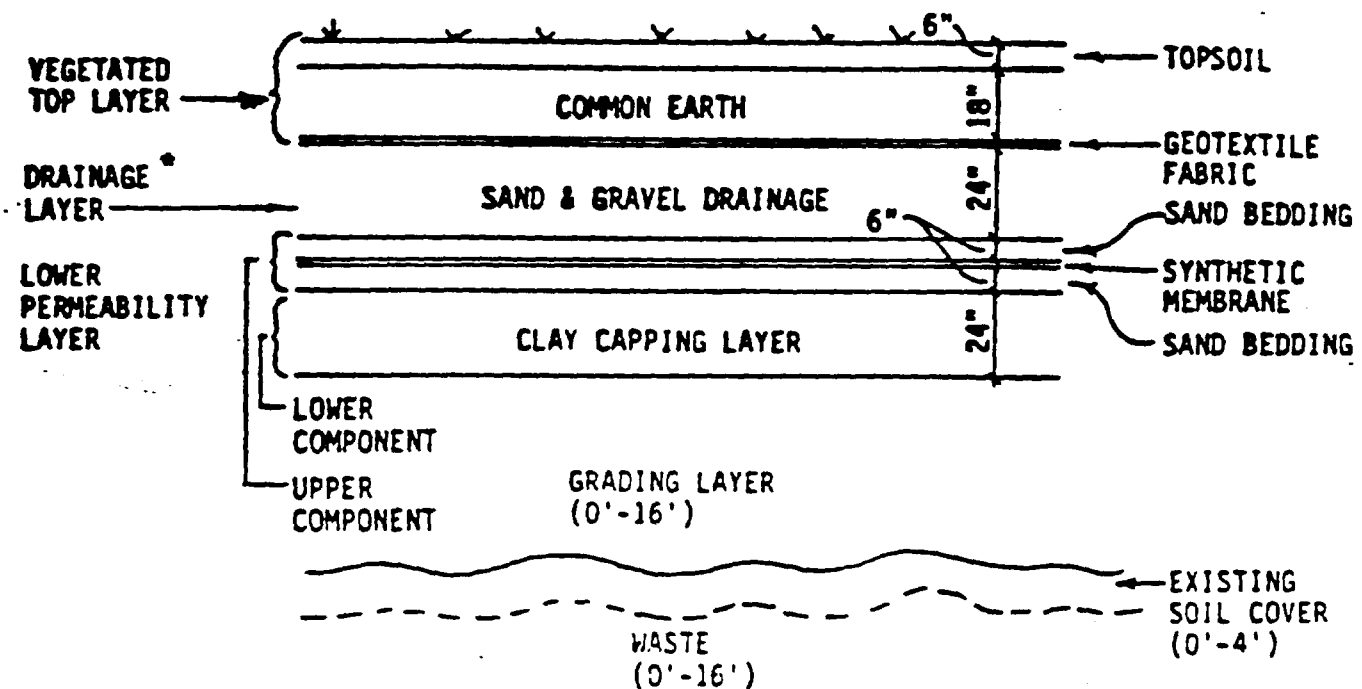


** THE COVER LAYER WAS SPECIFIED AT 30 IN. AS A WORST CASE SCENARIO
 TO ADDRESS THE CONCERNS OF NR 504.07 (5).

SCALE: 1" = .

WARZYN 	STRUCTURE OF SUBTITLE D CAP (NR 500) PER NR 504.07	Drawn <i>U. Lee</i>	Checked <i>MAJ</i>	App'd <i>GEA</i>
	REMEDIAL INVESTIGATION AND FEASIBILITY STUDY HAGEN FARM SITE	Revisions	Date <i>5-4-90</i>	

FIGURE 5
SPECIFICATION OF RCRA SUBTITLE C CAP



* THE DRAINAGE LAYER WAS SPECIFIED AT 24 IN. TO MEET THE REQUIREMENT THAT THE UPPER COMPONENT OF THE LOW PERMEABILITY LAYER BE LOCATED AT LEAST 12 IN. BELOW THE MAXIMUM RECORDED DEPTH OF FROST WHICH WAS ESTIMATED TO BE 36 IN.

SCALE: 1" = 4'

WARZYN



STRUCTURE OF SUBTITLE C CAP (NR 181)
 PER NR 181.44 (13)

REMEDIAL INVESTIGATION AND
 FEASIBILITY STUDY
 HAZARDOUS WASTE

Drawn *J. V. K.*

Revisions

Checked *M. J. L.*

App'd *GFA*

Date 5-4-90

TABLE 1

**Groundwater Quality Summary
VOCs and Semi-VOCs at Source Characterization Wells
Hagen Farm FS**

Concentrations (ug/L)

	<u>Maximum</u>	<u>Average(1)</u>	<u>No. Wells With Detection(2)</u>
<u>VOCs</u>			
2-Butanone	4,400,000	2,620	3
Toluene	20	20	1
Ethylbenzene	2,400	99	3
Xylenes	35,000	1,066	5
Tetrahydrofuran	630,000	5,695	5
<u>Semi-VOCs</u>			
Benzoic Acid	29,000	780	2
2,4-Dimethylphenol	330	153	2
4-Methylphenol	6,100	243	2
Phenol	5,600	3,816	1
1,4-Dichlorobenzene	10	10	1
Benzyl Alcohol	26	26	1
Bis(2-Chloroisopropyl)Ether	19	19	1
Naphtalene	8	8	1
4-Chloro-3-Methylphenol	7	7	1
Diethylphthalate	5	4.5	1
Bis(2-Ethylhexyl)Phthalate	34	18	3
Di-n-Octyl Phthalate	5	5	1

Notes

- (1) Geometric averages for positive detects at each well are calculated for duplicate analysis and multiple rounds, where applicable. Geometric average were then calculated using one single or, where more than one sample was obtained from a given well, average value for each well (5 wells).
- (2) Out of five wells. Some wells had more than one sample analyzed as indicated in (1).

TABLE 2
Source Characterization Summary
Analytical Results of Refuse Samples
Hagen Farm FS

Compound	Concentration		Number of(1) Samples
	Geometric Mean	Maximum	
<u>Inorganic (mg/kg)</u>			
Aluminum	7,690	13,000	10
Arsenic	3.1	4.6	10
Barium	96.8	2,550	10
Cadmium	1.3	1.8	8
Calcium	23,100	43,900	10
Chromium	10.7	16	10
Cobalt	296	296	1
Copper	15.6	160	10
Iron	11,100	15,900	10
Lead	24.4	107	10
Magnesium	14,800	26,500	10
Manganese	329	660	10
Mercury	0.12	0.42	6
Nickel	21.6	387	10
Pottasium	659	1,140	10
Sodium	1,550	4,920	2
Vanadium	18.4	29.8	10
Zinc	74.8	499	10
<u>Semivolatiles (ug/kg)</u>			
1,4-Dichlorobenzene	280	280*	2
Naphthalene	46	46*	1
Diethylphthalate	48	48*	1
Di-n-Butylphthalate	130	690	3
Fluoranthene	67	67*	1
Butylbenzylphthalate	220	18,000	8
bis(2-Ethylhexyl)Phthalate	3,410	120,000	9
Di-n-Octyl Phthalate	320	5,300	7
Phenanthrene	53	67*	2
Unknown Semivolatiles(2)	2,120	1,261,985	10

TABLE 2
(Continued)

<u>Compound</u>	<u>Concentration</u>		<u>Number of(1) Samples</u>
	<u>Geometric Mean</u>	<u>Maximum</u>	
<u>Pesticide/PCB's (ug/kg)</u>			
Dieldrin	11.6	11.6	1
4,4'-DDE	18.2	18.2	1
4,4'-DDD	11.9	128	4
4,4'-DDT	19.2	19.2	1
PCB-1242	104.8	284	4
PCB-1248	338	338	1
PCB-1254	222	222	1

Notes

(1) Out of 10 total sampling locations (Test Pits RS01 to RS10), excluding RS08 duplicate.

(2) Sum of tentatively identified compounds.

* Indicates concentration is below method quantitation limit. Value is estimated.

TABLE 3
COMPARISON OF SITE CONCENTRATION DATA
WITH FEDERAL AND STATE STANDARDS (UG/L)

<u>Compounds</u>	<u>Maximum Concentration</u>	<u>Federal Standard (MCL)</u>	<u>State Standard (PAL)</u>	<u>State Standard (ES)</u>	<u>Source</u>
2-butanone	4,400,000	N/A	90 ¹	460 ¹	SCW
Ethylbenzene	4,400	700 ¹	272	1360	MW
Toluene	550	2,000 ¹	68.6	343	MW
Xylenes	35,000	10,000 ¹	124	620	SCW
Tetrahydrofuran	630,000	N/A	10	50	SCW
Vinyl chloride ²	77	2	0.0015	0.2	MW
Arsenic ²	25.2	50	5	50	SCW
Barium	1,570	1,000	200	1000	SCW
Lead	6	50	5	50	SCW ³
Mercury	6.5	2	0.2	2	SCW

1. Proposed standards

2. 10^{-6} cancer risk for vinyl chloride is 0.015 ug/l, and for arsenic is 0.03 ug/l.

3. Lead was detected at concentration of 997 ug/l in leachate well.

* MCL: Maximum Contaminant Level, Drinking Water Regulation

* PAL: Preventive Action Limit, Ch. NR 140

* ES : Enforcement Standard

* SCW: Source Characterization Well located at refuse disposal area

* MW : Monitoring well located at or around landfill

* N/A: Not Available

** All of above compounds were not detected above detection limit at background groundwater well.

**RESPONSIVENESS SUMMARY
HAGEN FARM SITE
SOURCE CONTROL OPERABLE UNIT
DANE COUNTY, WISCONSIN**

PURPOSE

This responsiveness summary, required by the Superfund Law, provides a summary of citizen's comments and concerns identified and received during the public comment period, and U.S. EPA's responses to those comments and concerns. All comments received by U.S. EPA during the public comment period will be considered in the selection of the remedial alternative for the Site. The responsiveness summary serves two purposes: It provides U.S. EPA with information about community preferences and concerns regarding the remedial alternatives, and it shows members of the community how their comments were incorporated into the decision-making process.

This document summarizes one written comment received during the public comment period of July 11 to August 10, 1990. The public meeting was held at 7:00 p.m. on August 2, 1990 at Dunkirk Town Hall, Stoughton, Wisconsin. No comments were submitted during the public meeting.

OVERVIEW

The preferred alternative for the Hagen Farm site was announced to the public just prior to the beginning of the public comment period. The preferred alternative includes:

- * Installation of a WDNR required NR 504 solid waste cap over disposal area A after consolidation;
- * In-Situ Vapor Extraction of the waste refuse and sub-surface soils in disposal area A;
- * Off-gas treatment through carbon adsorption.

PUBLIC COMMENT AND AGENCY RESPONSE

COMMENT: It is unwise to spend more than \$2 million of the taxpayers' money to remediate the Hagen Farm site which will not affect anyone. The money should be spent to control cigarette smoking which kills thousands of people each year. In addition, the commentor stated U.S. EPA should be active in alleviating "drunk drivers."

RESPONSE: It is believed that the wastes in the Hagen Farm landfill have been contaminating the groundwater at the site. If the Agency does not remediate this contaminated landfill now, the landfill would contaminate the groundwater continuously in the future, and people who use this groundwater as their drinking

water will be affected. Therefore, it is important and wise to remediate the contaminated landfill. We expect that the funds to remediate this site will come from the parties determined to be potentially responsible for the contamination, not from the taxpayers. The issue of a referendum concerning smoking in public places is not within the scope of the Superfund program. Instead, this is a local matter and should be addressed to the city council. U.S. EPA also cannot address the commentor's statement on "drunk drivers" because that subject is not within the scope of the Superfund program. Such concerns should be brought to the attention of State or Local lawmakers.

FINAL

ADMINISTRATIVE RECORD INDEX HAGEN FARM SITE STOUGHTON, WISCONSIN

FRANK	PAGES	DATE	TITLE	AUTHOR	RECIPIENT	DOCUMENT TYPE	DOCUMENT#
26		08/01/83	Letter re: Comments on Site Evaluation Report, Technical Workplan, and QAPP	B. Ballotti, USEPA	A. DeBattista, WEMA of Correspondence WI		1
12		08/06/83	Letter forwarding responses to the Hagen Farm Site RI/FS QAPP, with the Chloride and Sulfate Analysis by Ion Chromatography	A. Hedine, Esposito Inc.	J. Dodson, Wazysa Engr.	Correspondence	2
1		08/06/80	Letter re: Responses and Revisions to Comments from USEPA-Region V QA Office on the Hagen Farm RI/FS QAPP	J. Darden, WEMA of WI, Inc.	S. Sylvester, USEPA	Correspondence	3
3		08/08/81	Letter re: Linearity of Detector Response for Chloride and Sulfate Analyses	G. Asbury & R. Wendt, Wazysa Engineering, Inc.	Chang-Wen Tsai, PhD, USEPA	Correspondence	4
3		08/09/86	Letter re: Methodology Modifications for Sulfate and Chloride Analyses	G. Asbury, Wazysa Engineering, Inc.	J. Lee, USEPA	Correspondence	5
7		08/10/85	Letter re: Work Plan Addendum for Source Characterization	J. Darden, Waste Mgmt. of WI, Inc.	J. Lee, USEPA	Correspondence	6
2		08/11/80	RI/FS QAPP Sign-off Sheet	J. Darden, WEMA of WI, Inc.	J. Lee, USEPA	Correspondence	7
33		09/07/80	Letter re: Work Plan Addendum for Phase 2 Site Investigation and Source Control Operable Unit FS	G. Asbury, Wazysa Engineering, Inc.	J. Lee, USEPA	Correspondence	8
23		09/07/85	Letter re: Response to Comments - Tech Memo 1	G. Asbury, Wazysa Engineering, Inc.	J. Darden, WEMA of WI, Inc.	Correspondence	9

**ADMINISTRATIVE RECORD INDEX
HAGEN FARM SITE
STOCKTON, WISCONSIN**

LINE	PAGES	DATE	TITLE	AUTHOR	RECIPIENT	DOCUMENT TYPE	DOCUMENT NUMBER
9		09/02/02	Letter re: Alternative Array Review Comments for the Source Control Operable Unit at the Hagen Farm Site	J. Lee, USEPA	B. Dracich, WMA of EI, Inc.	Correspondence	10
6		06/07/04	Superfund Fact Sheet Hagen Farm Site	USEPA		Fact Sheets	11
15		08/09/29	Mem re: Approval of QAPP for the RI/FS Activity at Hagen Farm Superfund site	A. Jirka, USEPA	B. Biederyang, USEPA	Memoranda	12
3		03/09/22	Addendum to Hagen Farm - Field GC Standard Operating Procedures	Harrys Engineering, Inc.		Other	13
63		07/09/16	Administrative Order by Consent Re: RI/FS for Hagen Farm Site	USEPA		Pleadings/Orders	14
24		04/00/00	PRP Response Summary	Hagen Farm Site		Reports/Studies	15
27		04/00/00	Draft Statement of Work for Conducting a RI/FS at the Hagen Farm Site Dane County, WI	USEPA		Reports/Studies	16
382		07/11/00	QAPP Hagen Farm Site Volume 3 of 3 November 1987	Harrys Engineering, Inc.	Waste Mgmt. of EI, Inc.	Reports/Studies	17
178		04/06/00	Work Plan Hagen Farm Site Volume 2 of 4	Harrys Engineering, Inc.	Waste Mgmt. of EI, Inc.	Reports/Studies	18
193		06/06/00	Site Evaluation Report Hagen Farm Site Volume 1 of 4	Harrys Engineering, Inc.	Waste Mgmt. of EI, Inc.	Reports/Studies	19
35		04/07/00	Final Community Relations Plan Hagen Farm	Jacobs Engineering Group Inc.	USEPA	Reports/Studies	20
60		04/07/21	Quality Assurance Plan	Radian Corporation,		Reports/Studies	21

**ADMINISTRATIVE RECORD INDEX
HAGEN FARM SITE
STOUGHTON, WISCONSIN**

DATE	PAGES	TITLE	AUTHOR	RECIPIENT	DOCUMENT TYPE	DOCUMENT#
		for the Analysis for Hazardous Substances List Volatile Organic Compounds in Air Samples by GC/MS	revised by USEPA			
218	03/09/01	Report on the Electro- magnetic and Magnetic Survey Conducted at the Hagen Farm Site	Proms Applied Technology	Warsyn Engineering, Inc.	Reports/Studies	22
9	03/09/23	Preliminary Health Assessment for Hagen Farm Site Stoughton, WI	WDES, Div. of Health, Bureau of Community Health and Prevention	ATSDR	Reports/Studies	23
327	03/03/00	RI/TS Hagen Farm Site Technical Memorandum Number 1 - March 1989	Warsyn Engineering, Inc.	Waste Mgmt. of EI, Inc.	Reports/Studies	24
37	03/03/00	RI/TS Hagen Farm Site Technical Memorandum Number 1	Warsyn Engineering, Inc.	Waste Mgmt. of EI, Inc.	Reports/Studies	25
6	03/07/00	Progress Report Hagen Farm Superfund Site	USEPA		Reports/Studies	26
65	03/10/00	Alternatives Array Document Source Control Operable Unit RI/TS Hagen Farm Site	Warsyn Engineering, Inc.		Reports/Studies	27
224	03/02/00	RI/TS Hagen Farm Site Technical Memorandum Number 2	Warsyn Engineering, Inc.	Waste Mgmt. of EI, Inc.	Reports/Studies	28

ADMINISTRATIVE RECORD INDEX - UPDATE #2
HAGER PARK SITE
STOUGHTON, WISCONSIN

FINAL

SHEET	PAGES	DATE	TITLE	AUTHOR	RECIPIENT	DOCUMENT TYPE	DOCHUMPER
2	90/08/13		Memo re: Remedy Delegation Report describing remedial actions delegated to the Regional Admini- strator for selection of remedy	B. Clay-USEPA	V. Adamko-USEPA	Memorandum	1



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Carroll D. Beedny, Secretary
Box 7821
Madison, Wisconsin 53707
DNR TELEFAX NO. 608-267-3579
TDD NO. 608-267-8897
SOLID WASTE TELEFAX NO. 608-267-2768

September 6, 1990

IN REPLY REFER TO: 4440

Mr. Valdas V. Adamkus, Regional Administrator
U.S. Environmental Protection Agency
230 S. Dearborn Street
Chicago, IL 60604

O: WMD
CC: RF
FREEMAN

SUBJECT: Selected Superfund Remedy
Hagen Farm Site
Dunkirk Township, Dane County, WI

Dear Mr. Adamkus:

The Department is providing you with this letter to document our position on the proposed source control operable unit for the Hagen Farm Site. The proposal, as identified in the draft Record of Decision, includes the following:

Alternative 3: In-Situ Vapor Extraction and Capping

Non-native waste materials from disposal areas B and C would be consolidated to disposal area A. The waste and contaminated sub-soil materials in disposal area A would be treated using In-Situ Vapor Extraction (ISVE). A low permeability cap meeting the Wisconsin requirements for capping municipal landfills will be placed over disposal area A.

Estimated Costs: Construction - \$2,679,400
Operation and Maintenance - \$29,530
30 Year Present Worth - \$3,299,000

The total 30 year present net worth for the Hagen Farm Source Control Operable Unit is approximately \$3,299,000. The Department concurs with Alternative 3, as described in the Record of Decision for this operable unit.

RECEIVED

SEP 12 1990

U. S. EPA REGION 5
OFFICE OF REGIONAL ADMINISTRATOR

Mr. Adamkus - September 6, 1990

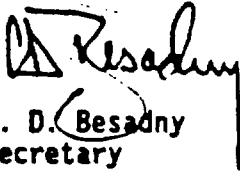
2

The State of Wisconsin will contribute 10% of the remedial action costs associated with this source control operable unit at the Hagen Farm Site if the potentially responsible parties (PRPs) do not agree to fund the remedy. This assurance assumes that EPA will pursue all legal action against the PRPs, including issuance of a unilateral order and litigation of such order, prior to expending the Fund.

We also understand that our staff will continue to work in close consultation with your staff during the remaining Remedial Investigation/Feasibility Study work associated with the groundwater control operable unit at the Hagen Farm Site, as well as during the design and construction of the source control operable unit remedy.

Thank you for your support and cooperation in addressing this contamination problem at the Hagen Farm Site in Dunkirk Township. If you have any questions regarding this matter, please contact Mr. Paul Didier, Director of the Bureau of Solid and Hazardous Waste Management, at (608) 266-1327.

Sincerely,


C. D. Besadny
Secretary

CDB:SB

cc. Lyman Wible - AD/5
Linda Meyer - LC/5
Paul Didier - SW/3
Joe Brusca - SOD
Pat McCutcheon/Mike Schmoller - SOD
Jae Lee - EPA Region V (5HS/11)
Mark Giesfeldt/Sue Bangert/Terry Evanson - SW/3

Appendix II
Administrative Record Index

**ADMINISTRATIVE RECORD INDEX
HAGEN FARM SITE
STOUGHTON, WISCONSIN**

FINAL

FRANK	PAGES	DATE	TITLE	AUTHOR	RECIPIENT	DOCUMENT TYPE	DOCUMENT#
26		08/01/23	Letter re: Comments on Site Evaluation Report, Technical Workplan, and QAPP	B. Ballotti, USEPA	B. DeBattista, WEA of Correspondence WI		1
12		08/06/23	Letter forwarding responses to the Hagen Farm Site RI/FS QAPP, with the Chloride and Sulfate Analysis by Ion Chromatography	A. Medina, Banoco Inc.	J. Dodson, Varsyn Eng.	Correspondence	2
1		08/06/30	Letter re: Responses and Revisions to Comments from USEPA-Region V QA Office on the Hagen Farm RI/FS QAPP	J. Borden, WEA of WI, Inc.	B. Sylvester, USEPA	Correspondence	3
3		08/08/21	Letter re: Linearity of Detector Response for Chloride and Sulfate Analyses	G. Asbury & R. Wendt, Varsyn Engineering, Inc.	Chang-Wen Tsai, PhD, USEPA	Correspondence	4
3		08/09/06	Letter re: Methodology Modifications for Sulfate and Chloride Analyses	G. Asbury, Varsyn Engineering, Inc.	J. Lee, USEPA	Correspondence	5
7		08/10/25	Letter re: Work Plan Addendum for Source Characterization	J. Borden, Waste Mgmt. of WI, Inc.	J. Lee, USEPA	Correspondence	6
2		08/11/10	RI/FS QAPP Sign-off Sheet	J. Borden, WEA of WI, Inc.	J. Lee, USEPA	Correspondence	7
20		09/07/20	Letter re: Work Plan Addendum for Phase 2 Site Investigation and Source Control Operable Unit 2B	G. Asbury, Varsyn Engineering, Inc.	J. Lee, USEPA	Correspondence	8
23		09/07/25	Letter re: Response to Comments - Tech Memo 1	G. Asbury, Varsyn Engineering, Inc.	J. Borden, WEA of WI, Inc.	Correspondence	9

83/6

REMEDIAL & ENFORCEMENT RESPONSE BRANCH

CORRESPONDENCE SIGN-OFF SHEET

Site: Hagen Fintm Site, WI

Item: Notice Letter ☐ Information Request ☐
Administrative Order ☒ Other ☐
Control Correspondence ☐
Special Notice Ltr ☐

MUST BE MAILED BY: 

Sign-off (Names not required s/b scratched)

<u>RERB</u>	<u>Date</u>	<u>ORC**/*</u>	<u>Date</u>
Support	_____	Staff Counsel	_____
REM <u>ju</u>	<u>3-5-91</u>	Unit Chief	_____
Unit Chief	<u>Wyt 3/5/91</u>	Section Chief	_____
Section Chief	<u>JD for JD 3/5/91</u>	Branch Chief	_____
Kelley	<u>RK for 3-6-91</u>	Regional Counsel	_____

** if ORC concurrence not required [].
* if consultation has occurred [].

Niedergang RK for NN 3-6-91
Ullrich JR for DU 3/7/91
Others: _____

ju
6-4749

~~Deputy Regional Administrator _____~~
~~Regional Administrator _____~~

Return to: Jae Lee, SHS-11 for mailing,
Phone # _____ Date returned for mailing _____.

CON Current Sign-off

REMEDIAL & ENFORCEMENT RESPONSE BRANCH

CORRESPONDENCE SIGN-OFF SHEET

Site: Hagen Farm Site

Item: Notice Letter ☐ Information Request ☐
Administrative Order ☒ Other ☐
Control Correspondence ☐
Special Notice Ltr ☐

MUST BE MAILED BY: March 7, 1991

Sign-off (Names not required s/b scratched)

~~RERB Date~~
~~Support _____~~
~~RPM _____~~
~~Unit Chief _____~~
~~Section Chief _____~~
~~Kelley _____~~

ORC**/* Date
✓ Staff Counsel 3/6/91
✓ Unit Chief _____
✓ Section Chief 3/6/91
✓ Branch Chief 3/6/91
✓ Regional Counsel _____

** if ORC concurrence not required [].
* if consultation has occurred [].

RC
conc. - not
vg's or
VA's.

Niedergang _____

Ullrich _____

Others: _____

Deputy Regional Administrator _____

Regional Administrator _____

Return to: _____, SHS-11 for mailing,

Phone # _____ Date returned for mailing _____.

[RERB:swl:04/12/90]



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

MAR 07 1991

REPLY TO ATTENTION OF:

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Waste Management of Wisconsin, Inc.
c/o Ms. Anne Straw
Suite 1000
Two Westbrook Corporate Center
P.O. Box 7070
Westchester, Illinois 60154

RE: Hagen Farm Superfund Site
Dane County, Wisconsin

Dear Ms. Straw:

Enclosed is a unilateral Administrative Order issued by the United States Environmental Protection Agency (U.S. EPA) under Section 106 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986 (CERCLA), 42 U.S.C. 9601, et seq.

Please note that the Effective Date of the Administrative Order (Order) is March 15, 1991. Also, please note that a conference has been scheduled for March 13, 1991, 10:00 am in the northwest corner conference room on the 11th floor, U.S. EPA Region V, 230 South Dearborn Street, Chicago, Illinois. The purpose of the meeting is to discuss the Administrative Order and its applicability to your company.

If you have any questions regarding the Order, please do not hesitate to contact Jae B. Lee, Remedial Project Manager, at (312) 886-4749, or Jeffrey A. Cahn, Assistant Regional Counsel, at (312) 886-6670.

Sincerely yours,

David A. Ullrich
Director, Waste Management Division

Enclosure

cc: (w/encl) P. Didier

Handwritten: JBL 3/6/91
JK 3/6/91

Handwritten signature and stamp: [Signature] [Stamp]

Appendix III
Scope of Work (SOW)